



January 16, 2009

Mr. Michael Hom
U.S. Environmental Protection Agency
Clean Water Enforcement Branch
61 Forsyth Street SW
Atlanta, GA 30303-8960

RE: Information Request – Section 308 of the Clean Water Act
Discharge of Perfluorinated Compounds
A&R Transport, Inc.
Decatur, Alabama

Dear Mr. Hom:

Pursuant to your request, received in our offices on December 22, 2008, we have prepared the following response to Enclosure A of your request dated December 16, 2008 (A copy of the original correspondence is included with this response):

1. *Provide a narrative description of the products manufactured or services provided by the Company's primary and secondary business at its Decatur, Alabama location for each calendar year beginning with calendar year 1996 to the present.*

A&R Transport, Inc. (A&R) in Decatur, Alabama is a Full Service Trucking Terminal with a Tank Wash Facility. The facility performs full service maintenance on over-the-road tractors and washes the exterior of trucks and the interior/exterior of trailers used in the transport of dry flowable bulk plastic products.

The terminal in Decatur operates Monday through Friday 0600 to 1630. The terminal provides transportation services exclusively for a local manufacturer of dry flowable bulk plastics including polypropylene, polyethylene, polyvinyl chloride, and polystyrene.

Routine maintenance and service, including exterior washing is performed on over-the-road tractors. The exterior of the trucks are washed using an industry standard two-part wash. The wastewater from the washing operations is discharged through a separator to remove oil & grease and solids prior to being discharged to the City of Decatur POTW.

The exterior and interior of the dry-bulk trailers used by A&R are also cleaned and washed at the Decatur Terminal. The trailers are used exclusively for dry flowable bulk material. Residual material left in the trailers is removed and the interior of the trailer is washed to remove any fines and/or dust. Residual dry material is collected and placed in a dumpster provided by Allied Waste. The wash water from the tank washing flows through a separator to remove solids prior to discharge to the City of Decatur POTW.

The Decatur Terminal operations have been in operation as described above since the terminal was opened in April 1995.

2. *Provide the Standard Industrial Classification and North American Industry Classification System codes for the Company's business(es) at its Decatur, Alabama location for each calendar year beginning with calendar year 1996 to the present.*

The Decatur Terminal has been operating under the following SID and NAICS codes since operations began in April 1995:

- a. SIC Code – 4213 Trucking, Except Local
 - b. NAICS Code – 484230 Specialized Freight (Except Used Goods) Trucking, Long Distance
3. *Provide a list and a general estimate of the amounts of raw and finished materials that may have contained PFCs which were used in the company's operations to manufacture products or provide services at its Decatur, Alabama location for each calendar year beginning with calendar year 1996 to the present.*

The Decatur Terminal has not used raw and/or finished materials which may have contained PFCs since operations began in April 1995.

4. *Provide a copy of the Material Safety Data Sheets for the raw materials used in the Company's operations to manufacture products or provide services at its Decatur, Alabama location for each calendar year beginning with calendar year 1996 to the present.*

Copies of Material Safety Data Sheets (MSDS) for the Decatur Terminal are included with this response. The MSDS provided are current MSDS for the facility. MSDS for prior years are not available.

5. *Has the company ever used PFCs in its operations to manufacture products or provide services at its Decatur, Alabama location? If so, provide the name of the*

PFC and a general estimate of the amounts used for each calendar year beginning with calendar year 1996 to the present.

The Decatur Terminal has not used PFCs in its operations since operations began in April 1995.

6. *Has the Company ever used telomers or fluoropolymers in its operations to manufacture products or services at its Decatur, Alabama location? If so, provide the name of the telomer or fluoropolymer and a general estimate of the amounts used for each calendar year beginning with calendar year 1996 to the present.*

The Decatur Terminal has not used telomers or fluoropolymers in its operations since operations began in April 1995.

7. *Provide a narrative description of the byproducts, waste streams, and emissions from the Company's operations to manufacture products or provide services at its Decatur, Alabama location for each calendar year from calendar year 1996 to the present.*

The current and past operations at the Decatur Terminal have resulted in the following byproducts or waste streams:

- a. Wastewater from washing exterior of trucks and trailers.
 - b. Wastewater from washing interior of trailers.
 - c. Residual Dry Flowable Bulk Materials – removed from trailers prior to washing the interior of the trailer.
 - d. Fines & Solids removed from wastewater separator.
 - e. Used Oil from truck maintenance.
 - f. Used oil filters from truck maintenance.
8. *Provide a narrative description of the disposal methods and disposal locations of the byproducts, waste streams and emissions from the Company's operations to manufacture products or provide services at its Decatur, Alabama location for each calendar year from calendar year 1996 to the present.*
- a. Wastewater from washing exterior of trucks and trailers – Discharge to Sewer – City of Decatur POTW
 - b. Wastewater from washing interior of trailers – Discharge to Sewer – City of Decatur POTW
 - c. Residual Dry Plastic Raw Materials – removed from trailers prior to washing the interior of the trailer – Subtitle D Landfill – Allied Waste – Hillsboro, Alabama
 - d. Fines & Solids removed from wastewater separator – Subtitle D Landfill – Allied Waste – Hillsboro, Alabama

- e. Fines & Solids removed from wastewater separator – Discharge to Municipal Treatment Plant – City of Decatur POTW
 - f. Used Oil from truck maintenance – Recycled – Safety Kleen – Huntsville, Alabama
 - g. Used oil filters from truck maintenance – Subtitle D Landfill – Allied Waste – Hillsboro, Alabama
9. *Provide a narrative description of any pollution abatement equipment and/or pretreatment process that has been applied to the byproducts and waste streams from the Company's operations to manufacture products or provide services at its Decatur, Alabama location prior to their discharge into the Decatur Utilities sewer system for each calendar year beginning with calendar year 1996 to the present.*

Wastewater generated at the Decatur Terminal from truck and tank washing is discharged to an oil/water/grit separator to remove free oil & grease and to allow grit/solids to settle out prior to discharge to the City of Decatur POTW.

10. *Provide any analytical data or monitoring results indicating the presence of PFCs or fluoride in the byproducts and waste streams from the Company's operations to manufacture products or provide services at its Decatur, Alabama location that were discharged into the Decatur Utilities sewer system for each calendar year beginning with calendar year 1996 to the present.*

The Decatur Terminal has no analytical data or monitoring results indicating the presence of PFCs or fluoride in the byproducts and waste streams generated by this facility.

11. *Provide a copy of any permit, contract or agreement that the Company may have or have had relating to the discharge of byproducts and waste streams into the Decatur Utilities sewer system (include with this information copies of any permit applications) for each calendar year beginning with calendar year 1996 to the present.*

The Decatur Terminal does not have, nor have they had, a permit, contract or agreement relating to the discharge of byproducts and waste streams into the Decatur Utilities sewer system.

12. *Has the Company performed any monitoring or sampling of ambient air, surface water, groundwater or soil for PFCs at and around the Company's Decatur, Alabama location? If so, provide the resulting analytical data or monitoring results.*

The Decatur Terminal has not performed any monitoring or sampling of ambient air, surface water, groundwater or soil for PFCs at or around the Decatur, Alabama location.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Signature of Responsible Official

1-16-09
Date Signed

KENNETH E. PATE
Name of Responsible Official

Vice-President Safety & Risk Management
Title of Responsible Official

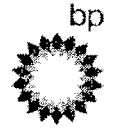
If you have any questions or would like additional information, please give me a call at (800) 542-8058 Extension 3652.

Sincerely,

Kenneth E. Pate
Vice President of Safety and Risk Management

Attachments As Indicated

Material Safety Data Sheet



1. Chemical Product and Company Identification

Product name TA-22
MSDS# 0000000748
Historic MSDS#: 01092
Product Use Manufacture of chemicals.
Synonyms PTA
Supplier BP Amoco Chemical Company
150 West Warrenville Road
Naperville, Illinois 60563-8460
USA
Tel: 1 (877) 701-2726
EMERGENCY HEALTH INFORMATION: 1 (800) 447-8735
EMERGENCY SPILL INFORMATION: 1 (800) 424-9300
CHEMTREC (USA)
OTHER PRODUCT INFORMATION 1 (866) 4 BP - MSDS
(866-427-6737 Toll Free - North America)
email: bpcares@bp.com

2. Composition / information on ingredients

Ingredient Name	CAS #	% by Weight	Exposure Limits
Terephthalic Acid	100-21-0	100	ACGIH TLV (United States, 2002). TWA: 10 mg/m ³

3. Hazards identification

Physical state Solid. (Crystals solid.)

Color White.

Emergency Overview

This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria.

Routes of Entry Skin contact. Eye contact. Inhalation. Ingestion.

POTENTIAL HEALTH EFFECTS

Eyes	No significant health hazards identified. Particles or fibers may cause slight discomfort similar to getting dust in the eye.
Skin	No significant irritation expected other than possible mechanical irritation.
Inhalation	No significant health hazards identified.
Ingestion	No significant health hazards identified.

Medical Conditions Aggravated by Overexposure: None identified.

See Toxicological Information (section 11)

4. First-aid measures

Eye Contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact	Wash with soap and water. Get medical attention if irritation develops.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

5. Fire-fighting measures

Flammability of the Product	May be combustible at high temperature.
Autoignition temperature	678 °C
Flash point	260 °C (CLOSED CUP)
Explosion Limits	LOWER: 0.05 %
Products of Combustion	These products are carbon oxides (CO, CO ₂).
Unusual fire/explosion hazards	Fine dust clouds may form explosive mixtures with air. Handling of this product may generate static electricity, which can present an ignition hazard in some cases. This material is not explosive as defined by established regulatory criteria.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Protective Clothing (Fire)	Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

6. Accidental release measures

Personal Precautions	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5). Do not touch or walk through spilled material.
Environmental Precautions and Clean-up Methods	If emergency personnel are unavailable vacuum or carefully scoop up spilled materials and place in an appropriate container for disposal. Avoid creating dusty conditions and prevent wind dispersal. Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.
Personal Protection in Case of a Large Spill	Chemical/Dust Goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

7. Handling and storage

Handling	Avoid breathing dust. Keep away from heat, sparks and flame. To avoid fire, minimize ignition sources. Take precautionary measures against static electricity. The need for additional measures for explosion protection should be evaluated (see NFPA 68--Guide for Venting of Deflagrations; and NFPA 69--Standard on Explosion Prevention Systems). Wash thoroughly after handling.
Storage	Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8. Exposure controls/personal protection

Occupational Exposure Limits	
Ingredient Name	Occupational Exposure Limits
Terephthalic Acid	ACGIH TLV (United States, 2002). TWA: 10 mg/m ³
Control Measures	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Hygiene measures	Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.
Personal Protection	
Eyes	Avoid contact with eyes. Chemical/Dust Goggles
Skin and Body	None required; however, use of protective clothing is good industrial practice.

Respiratory

Use with adequate ventilation. If ventilation is inadequate, use respirator that will protect against dust/mist.

If concentration is unknown, a Self-Contained Breathing Apparatus (SCBA) should be used to avoid inhalation of the product.

Hands

None required; however, use of gloves is good industrial practice.

The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacture and with a full assessment of the working conditions.

Consult your supervisor or S.O.P. for special handling directions

Consult local authorities for acceptable exposure limits.

9. Physical and chemical properties

Physical state	Solid. (Crystals solid.)
pH	3.9 (Acidic.)
Odor	Odorless.
Color	White.
Boiling Point / range	Sublimes.
Melting Point / range	427 °C
Specific Gravity	1.51
Vapor Pressure	<0.001 kPa (<0.01 mmHg) (at 20°C)
Solubility	Insoluble in cold water.

10. Stability and reactivity

Stability and Reactivity	The product is stable.
Conditions to avoid	Keep away from heat, sparks and flame. Take precautionary measures against static discharges.
Incompatibility with Various Substances	May react or be incompatible with oxidizing materials.
Hazardous Decomposition Products	Products of Combustion: carbon oxides (CO, CO ₂)
Hazardous Polymerization	Will not occur.

11. Toxicological information

Acute toxicity

Ingredient Name	Test	Result	Route	Species
Terephthalic Acid	LD50	>5000 mg/kg	Oral	Rat
	LD50	>2000 mg/kg	Dermal	Rabbit

Chronic toxicity

Carcinogenic Effects	No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).
Mutagenic Effects	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.
Reproductive Effects	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin.
Teratogenic effects	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

Other information

This product contains terephthalic acid. Terephthalic acid is non-irritating to eyes and skin. The maximum eye irritation score was 10.0/110 after one hour (rabbit). The Primary Dermal Irritation Score for terephthalic acid was 0.2/8.0 (rabbit). The dermal LD50 was greater than 2000 mg/kg body weight (rabbit).

The oral LD50 was greater than 5000 mg/kg body weight (rat). Terephthalic acid produced urinary calculi when fed to rats at very high levels in the diet during chronic studies. Humans are not expected to produce urinary calculi by skin exposure or by inhalation exposure.

The 2 hour LD50 was greater than 2000 mg/m3 (rat). No fatalities occurred when rats were exposed to 25 mg/m3 terephthalic acid, 6 hours per day, 5 days a week, for 4 weeks. The weight gain of the test animals was lower than normal.

Exposing pregnant rats to concentrations of terephthalic acid as high as 10 mg/m3 during the major organogenesis period did not result in any significant toxic or teratogenic effects.

12. Ecological information

Ecotoxicity	922 mg/l [LC50], 96 hours [Fish] >982 mg/l, 48 hours [Daphnia]
Other Ecological Information	PTA is relatively non-toxic to aquatic organisms. Test results of the acute toxicity of terephthalic acid and its sodium salt for several freshwater species were conducted following relevant OECD protocols and in compliance with Good Laboratory Practices (GLP).

Terephthalic acid has been shown to biodegrade in water under several test methods and in soil suspension inoculum, according to published reports. In a modified Sturm test (OECD Guideline 301B), over 60% of the theoretical CO₂ was generated within 5 days, and over 80% of the theoretical CO₂ was generated within 14 days, at two concentrations of terephthalic acid, meeting the criteria for "readily biodegradable."

Abiotic degradation, such as photolysis or hydrolysis, is not expected to be significant.

Terephthalic acid is not expected to bioconcentrate or bioaccumulate. A low bioconcentration factor of 19 is predicted using the estimated octanol-water partition coefficient (log K_{ow}) of 2 for undissociated terephthalic acid. Significant bioconcentration is unlikely if bioconcentration factors are less than 100 to 1000. Other evidence supports the expected lack of bioconcentration, including the biodegradability and the elimination of terephthalic acid and its metabolites in mammalian studies.

13. Disposal considerations

Waste Information	Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities. Comply with all federal, state and local laws pertaining to waste management. Since the emptied containers retain product residue, follow product insert warnings even after container is emptied.
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Consult your local or regional authorities.

14. Transport information

Not classified as hazardous for transport (DOT, TDG, UN, IMO, IATA/ICAO).

15. Regulatory information

U.S. Federal Regulations	US INVENTORY (TSCA): Listed on inventory. SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355. SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370): Defined as non-hazardous by OSHA under 29 CFR 1910.1200(d). SARA 313 toxic chemical notification and release reporting: No products were found. CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4) This material is not regulated under CERCLA Sections 103 and 107.
State Regulations	Pennsylvania RTK: Terephthalic Acid: (environmental hazard, generic environmental hazard) Massachusetts RTK: Terephthalic Acid New Jersey: Terephthalic Acid California prop. 65: No products were found.

AUSTRALIAN INVENTORY (AICS): Listed on inventory.

CANADA INVENTORY (DSL): Listed on inventory.

CHINA INVENTORY (IECS): Listed on inventory.

EC INVENTORY (EINECS): Listed on inventory.

JAPAN INVENTORY (ENCS): Listed on inventory.

KOREA INVENTORY (ECL): Listed on inventory.

PHILIPPINE INVENTORY (PICCS): Listed on inventory.

16. Other information

Label Requirements

This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria.

Hazardous Material Information System (U.S.A.)

Reactivity	0
Fire Hazard	1
Physical Hazard	0
Personal Protection	A

National Fire Protection Association (U.S.A.)



HISTORY

Date of issue 09/17/2002.
 Date of Previous Issue No Previous Validation.
 Prepared by Product Stewardship


Notice to Reader

NOTICE : This Material Safety Data Sheet is based upon data considered to be accurate at the time of its preparation. Despite our efforts, it may not be up to date or applicable to the circumstances of any particular case. We are not responsible for any damage or injury resulting from abnormal use, from any failure to follow appropriate practices or from hazards inherent in the nature of the product.



Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product Name	TA-33 LP	MSDS#	000000750
Supplier	 Amoco Chemical Company 150 West Warrenville Road Naperville, Illinois 60563-8460 USA Tel.: 1 (877) 701-2726 1 (800) 447-8735	Historic MSDS#:	01264
EMERGENCY HEALTH INFORMATION:	1 (800) 424-9300		
EMERGENCY SPILL INFORMATION:	CHEMTREC (USA)		
OTHER PRODUCT INFORMATION	1 (866) 4 BP - MSDS (888-427-6737 Toll Free - North America) email: bpcares@bp.com		

Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
1) TEREPHTHALIC ACID	100-21-0	100	ACGIH TLV (United States, 2000). TWA: 10 mg/m ³

Section 3. Hazards Identification

Physical state Solid. (Crystals solid.)
Color White.

Emergency Overview

This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria. Handling and/or processing of this material may generate a dust which may cause mechanical irritation of the eyes, skin, nose and throat.

POTENTIAL HEALTH EFFECTS

Eyes No significant health hazards identified. Particles or fibers may cause slight discomfort similar to getting dust in the eye.

Skin No significant health hazards identified.

Inhalation No significant health hazards identified.

Ingestion No significant health hazards identified.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact Wash exposed skin with soap and water. Get medical attention if irritation develops.

Inhalation Avoid breathing dust. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

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Section 5. Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature.
Autoignition Temperature	678°C (1252.4°F)
Flash Points	CLOSED CUP: 260°C (500°F).
Flammable Limits	LOWER: 0.05%
Products of Combustion	These products are carbon oxides (CO, CO ₂).
Unusual fire/explosion hazards	High dust concentrations have a potential for combustion or explosion. Fine dust clouds may form explosive mixtures with air.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

DO NOT FIGHT FIRE WHEN IT REACHES MATERIAL. Withdraw from fire and let it burn. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Apply water from a safe distance to cool container and protect surrounding area.

Protective Clothing (Fire) Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Section 6. Accidental Release Measures

Large Spill and Leak Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5). Do not touch or walk through spilled material.

If emergency personnel are unavailable vacuum or carefully scoop up spilled materials and place in an appropriate container for disposal. Avoid creating dusty conditions and prevent wind dispersal. Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.

Section 7. Handling and Storage

Handling Take precautionary measures against static discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Avoid prolonged or repeated contact with skin. Avoid breathing dust. Wash thoroughly after handling.

Storage Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls, Personal Protection

Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection

Eyes Chemical splash goggles.

Skin and Body Avoid prolonged or repeated contact with skin. Wear protective clothing if prolonged or repeated contact is likely.

Respiratory Use only with adequate ventilation. Do not breathe dust. If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist.

Hands Wear protective gloves if prolonged or repeated contact is likely.

Chemical name	Exposure Limits
1) TEREPHTHALIC ACID	ACGIH TLV (United States, 2000). TWA: 10 mg/m ³

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state	Solid. (Crystals solid.)	Odor	Odorless.
pH	3.9 [Acidic.]	Color	White.
Boiling/Condensation Point	402C (756F) (Sublimes.)		
Melting/Freezing Point	427°C (801°F)		

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Specific Gravity	1.51 (Water = 1)
Vapor Pressure	<0.001 kPa (<0.01 mmHg) (at 20°C)
Vapor Density	Not available.
Odor Threshold	Not available.
Evaporation Rate	Not available.
LogK _{ow}	Not available.
Solubility	Insoluble in cold water.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions to avoid	Take precautionary measures against static discharges.
Incompatibility with Various Substances	Not available.
Hazardous Decomposition Products	carbon oxides (CO, CO ₂)
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Acute toxicity	Acute oral toxicity (LD ₅₀): >5000 mg/kg [Rat]. Acute dermal toxicity (LD ₅₀): >2000 mg/kg [Rabbit].
Chronic toxicity	No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or International Agency for Research on Cancer (IARC). No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen. No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin. No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.
Other information	This product contains terephthalic acid. Terephthalic acid is non-irritating to eyes and skin. The maximum eye irritation score was 10.0/110 after one hour (rabbit). The Primary Dermal Irritation Score for terephthalic acid was 0.2/8.0 (rabbit). The dermal LD ₅₀ was greater than 2000 mg/kg body weight (rabbit). The oral LD ₅₀ was greater than 5000 mg/kg body weight (rat). Terephthalic acid produced urinary calculi when fed to rats at very high levels in the diet during chronic studies. Humans are not expected to produce urinary calculi by skin exposure or by inhalation exposure. The 2 hour LD ₅₀ was greater than 2000 mg/m ³ (rat). No fatalities occurred when rats were exposed to 25 mg/m ³ terephthalic acid, 6 hours per day, 5 days a week, for 4 weeks. The weight gain of the test animals was lower than normal. Exposing pregnant rats to concentrations of terephthalic acid as high as 10 mg/m ³ during the major organogenesis period did not result in any significant toxic or teratogenic effects in the dam or the fetus.

Section 12. Ecological Information

Ecotoxicity	>982 mg/l [EC ₅₀], 48 hours [Daphnia]. 514 mg/l [EC ₅₀], 96 hours [Daphnia]. >922 mg/l [LC ₅₀], 96 hours [Fish]. 922 mg/l, No effect, 96 hours [Fish]. >409 mg/l, No effect, 96 hours [Algae].
	PTA is relatively non-toxic to aquatic organisms. Test results of the acute toxicity of terephthalic acid and its sodium salt for several freshwater species were conducted following relevant OECD protocols and in compliance with Good Laboratory Practices (GLP).

Terephthalic acid has been shown to biodegrade in water under several test methods and in soil suspension

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inoculum, according to published reports. In a modified Sturm test (OECD Guideline 301B), over 60% of the theoretical CO₂ was generated within 5 days, and over 80% of the theoretical CO₂ was generated within 14 days, at two concentrations of terephthalic acid, meeting the criteria for "readily biodegradable."

Abiotic degradation, such as photolysis or hydrolysis, is not expected to be significant.

Terephthalic acid is not expected to bioconcentrate or bioaccumulate. A low bioconcentration factor of 19 is predicted using the estimated octanol-water partition coefficient (log K_{ow}) of 2 for undissociated terephthalic acid. Significant bioconcentration is unlikely if bioconcentration factors are less than 100 to 1000. Other evidence supports the expected lack of bioconcentration, including the biodegradability and the elimination of terephthalic acid and its metabolites in mammalian studies.

Section 13: Disposal Considerations

Waste Information Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities. Comply with all federal, state and local laws pertaining to waste management. Since the emptied containers retain product residue, follow product insert warnings even after container is emptied.

Consult your local or regional authorities.

Section 14: Transport Information

DOT Classification Not regulated.

Not regulated.

Marine Pollutant Not determined.

Special Provisions for Transport -

ADR/RID Classification

UN number Not available.
Proper shipping name Not regulated.
ADR/RID Class Not available.
Packing Group Not available.

IMO/IMDG Classification

Proper shipping name Not regulated.
IMDG Class Not available.
UN number Not available.
Packing Group Not available.
Marine Pollutant Not available.

ICAO/IATA Classification

Proper shipping name Not regulated.
IATA Class Not available.
UN number Not available.
Packing Group Not available.

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Section 15. Regulatory Information

U.S. Regulations US INVENTORY (TSCA): Listed on inventory.
 SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.
 SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370): TEREPHTHALIC ACID: Immediate (Acute) Health Hazard
 SARA 313 toxic chemical notification and release reporting: No products were found.
 CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4): This material is not regulated under CERCLA Sections 103 and 107.

State Regulations Pennsylvania RTK: TEREPHTHALIC ACID: (environmental hazard, generic environmental hazard)
 Massachusetts RTK: TEREPHTHALIC ACID
 New Jersey: TEREPHTHALIC ACID
 California prop. 65: No products were found.

Other Regulations AUSTRALIAN INVENTORY (AICS): Listed on inventory.
 CANADA INVENTORY (DSL): Listed on inventory.
 CHINA INVENTORY (IECS): Listed on inventory.
 EC INVENTORY (EINECS/ELINCS): Listed on inventory.
 JAPAN INVENTORY (ENCS): Listed on inventory.
 KOREA INVENTORY (ECL): Listed on inventory.
 PHILIPPINE INVENTORY (PICCS): Listed on inventory.

Section 16. Other Information

Label Requirements This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria. Handling and/or processing of this material may generate a dust which may cause mechanical irritation of the eyes, skin, nose and throat.

Hazardous Material Information System (U.S.A.)

Health	0
Fire Hazard	1
Reactivity	0

National Fire Protection Association (U.S.A.)



HISTORY

Date of issue 2/11/2002.
 Version 2
 Prepared by Product Stewardship

Notice to Reader

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Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product Name	TA-33 MP	MSDS#	000000751
Supplier	Amoco Chemical Company 150 West Warrenville Road Naperville, Illinois 60583-8460 USA Tel.: 1 (877) 701-2726	Historic MSDS#:	01265
EMERGENCY HEALTH INFORMATION:	1 (800) 447-8735		
EMERGENCY SPILL INFORMATION:	1 (800) 424-9300 CHEMTEC (USA)		
OTHER PRODUCT INFORMATION	1 (866) 4 BP - MSDS (866-427-6737 Toll Free - North America) email: bpcare@bp.com		

Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
1) TEREPHTHALIC ACID	100-21-0	100	ACGIH TLV (United States, 2000). TWA: 10 mg/m ³

Section 3. Hazards (Identification)

Physical state Solid. (Crystals solid.)
Color White.

Emergency Overview

This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria. Handling and/or processing of this material may generate a dust which may cause mechanical irritation of the eyes, skin, nose and throat.

POTENTIAL HEALTH EFFECTS

Eyes No significant health hazards identified. Particles or fibers may cause slight discomfort similar to getting dust in the eye.

Skin No significant health hazards identified.

Inhalation No significant health hazards identified.

Ingestion No significant health hazards identified.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact Wash exposed skin with soap and water. Get medical attention if irritation develops.

Inhalation Do not breathe dust. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

Continued on Next Page

INVOICE

MCGRUFF

MCGRUFF COMM. DECATUR
P.O BOX 1148
CULLMAN, AL 35056
(256) 353-9050

INVOICE DATE	CUST. NO.	ORDER NO.	PAGE	INVOICE NO.
02/28/2008	83272	145183	1	156510
Vehicle:2660			COPY	
Mileage:320,186				

SOLD TO A & R TRANSPORT INC
PO BOX 848
MORRIS, IL 60450

SHIP TO A & R TRANSPORT INC

PURCHASE ORD. NO.	SALES PERSON	MAIN PHONE	OTHER ST M	SHIP VIA	Charge
6P0040456	184	(800)542-8058		CPU	Phone: (815) 941-5200 HWO: PAT VIN: P564886 ILL

ITEM NO.	DESCRIPTION	QTY. ORDERED	QTY. SHIPPED	F.E.T.	PRICE	NET EXTENSION
TALIGN	ALIGNMENT TRUCK	1	1		179.95	179.95
35030	ALIGNMENT SHIM	3	3		8.07	24.21
	*SIGNED BY LEON BARNETT					
Pulled: _____	**** McGRUFF ****					
Checked: _____	*59 YEARS OF CUSTOMER SERVICE*					
	**** 1948 - 2007 ****					

NET 1ST/10TH

WIGNUT TORQUE SHOULD BE RE-CHECKED AFTER FIRST 50 TO 100 MILES

X _____ Print Name: _____

SubTot Parts:	24.21
SubTot Other:	179.95
Tax-07 7.00%:	1.69
Inv Total :	205.85

inoculum, according to published reports. In a modified Sturm test (OECD Guideline 301B), over 60% of the theoretical CO₂ was generated within 5 days, and over 80% of the theoretical CO₂ was generated within 14 days, at two concentrations of terephthalic acid, meeting the criteria for "readily biodegradable."

Abiotic degradation, such as photolysis or hydrolysis, is not expected to be significant.

Terephthalic acid is not expected to bioconcentrate or bioaccumulate. A low bioconcentration factor of 19 is predicted using the estimated octanol-water partition coefficient (log K_{ow}) of 2 for undissociated terephthalic acid. Significant bioconcentration is unlikely if bioconcentration factors are less than 100 to 1000. Other evidence supports the expected lack of bioconcentration, including the biodegradability and the elimination of terephthalic acid and its metabolites in mammalian studies.

Section 13: Disposal Considerations

Waste Information Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities. Comply with all federal, state and local laws pertaining to waste management. Since the emptied containers retain product residue, follow product insert warnings even after container is emptied.

Consult your local or regional authorities.

Section 14: Transport Information

DOT Classification Not regulated.

Not regulated.

Marine Pollutant Not determined.

Special Provisions for Transport -

ADR/RID Classification

UN number Not available.
Proper shipping name Not regulated.
ADR/RID Class Not available.
Packing Group Not available.

IMO/IMDG Classification

Proper shipping name Not regulated.
IMDG Class Not available.
UN number Not available.
Packing Group Not available.
Marine Pollutant Not available.

ICAO/IATA Classification

Proper shipping name Not regulated.
IATA Class Not available.
UN number Not available.
Packing Group Not available.

Continued on Next Page.

Section 15. Regulatory Information

U.S. Regulations US INVENTORY (TSCA): Listed on inventory.
 SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.
 SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370): TEREPHTHALIC ACID: Immediate (Acute) Health Hazard
 SARA 313 toxic chemical notification and release reporting: No products were found.
 CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4): This material is not regulated under CERCLA Sections 103 and 107.

State Regulations Pennsylvania RTK: TEREPHTHALIC ACID: (environmental hazard, generic environmental hazard)
 Massachusetts RTK: TEREPHTHALIC ACID
 New Jersey: TEREPHTHALIC ACID
 California prop. 65: No products were found.

Other Regulations AUSTRALIAN INVENTORY (AICS): Listed on inventory.
 CANADA INVENTORY (DSL): Listed on inventory.
 CHINA INVENTORY (IECS): Listed on inventory.
 EC INVENTORY (EINECS/ELINCS): Listed on inventory.
 JAPAN INVENTORY (ENCS): Listed on inventory.
 KOREA INVENTORY (ECL): Listed on inventory.
 PHILIPPINE INVENTORY (PICCS): Listed on inventory.

Section 16. Other Information

Label Requirements

This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria. Handling and/or processing of this material may generate a dust which may cause mechanical irritation of the eyes, skin, nose and throat.

Hazardous Material Information System (U.S.A.)

Health	0
Fire Hazard	1
Reactivity	0

National Fire Protection Association (U.S.A.)



HISTORY

Date of issue 2/11/2002.
 Version 2
 Prepared by Product Stewardship

Notice to Reader

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Section 5. Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature.
Autoignition Temperature	678°C (1252.4°F)
Flash Points	CLOSED CUP: 260°C (500°F).
Flammable Limits	LOWER: 0.05%
Products of Combustion	These products are carbon oxides (CO, CO ₂).
Unusual fire/explosion hazards	High dust concentrations have a potential for combustion or explosion. Fine dust clouds may form explosive mixtures with air.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

DO NOT FIGHT FIRE WHEN IT REACHES MATERIAL. Withdraw from fire and let it burn. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Apply water from a safe distance to cool container and protect surrounding area.

Protective Clothing (Fire) Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Section 6. Accidental Release Measures

Large Spill and Leak Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5). Do not touch or walk through spilled material.

If emergency personnel are unavailable vacuum or carefully scoop up spilled materials and place in an appropriate container for disposal. Avoid creating dusty conditions and prevent wind dispersal. Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.

Section 7. Handling and Storage

Handling Take precautionary measures against static discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Avoid prolonged or repeated contact with skin. Avoid breathing dust. Wash thoroughly after handling.

Storage Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls, Personal Protection

Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection

Eyes Chemical splash goggles.

Skin and Body Avoid prolonged or repeated contact with skin. Wear protective clothing if prolonged or repeated contact is likely.

Respiratory Use only with adequate ventilation. Do not breathe dust. If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist.

Hands Wear protective gloves if prolonged or repeated contact is likely.

Chemical name	Exposure Limits
1) TEREPHTHALIC ACID	ACGIH TLV (United States, 2000). TWA: 10 mg/m ³

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state	Solid. (Crystals solid.)	Odor	Odorless.
pH	3.9 [Acidic.]	Color	White.
Boiling/Condensation Point	402C (756F) (Sublimes.)		
Melting/Freezing Point	427°C (801°F)		

Continued on Next Page

Specific Gravity	1.51 (Water = 1)
Vapor Pressure	<0.001 kPa (<0.01 mmHg) (at 20°C)
Vapor Density	Not available.
Odor Threshold	Not available.
Evaporation Rate	Not available.
LogK _{ow}	Not available.
Solubility	Insoluble in cold water.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions to avoid	Take precautionary measures against static discharges.
Incompatibility with Various Substances	Not available.
Hazardous Decomposition Products	carbon oxides (CO, CO ₂)
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Acute toxicity	Acute oral toxicity (LD ₅₀): >5000 mg/kg [Rat]. Acute dermal toxicity (LD ₅₀): >2000 mg/kg [Rabbit].
Chronic toxicity	No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or International Agency for Research on Cancer (IARC). No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen. No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin. No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.
Other information	This product contains terephthalic acid. Terephthalic acid is non-irritating to eyes and skin. The maximum eye irritation score was 10.0/110 after one hour (rabbit). The Primary Dermal Irritation Score for terephthalic acid was 0.2/8.0 (rabbit). The dermal LD ₅₀ was greater than 2000 mg/kg body weight (rabbit). The oral LD ₅₀ was greater than 5000 mg/kg body weight (rat). Terephthalic acid produced urinary calculi when fed to rats at very high levels in the diet during chronic studies. Humans are not expected to produce urinary calculi by skin exposure or by inhalation exposure. The 2 hour LD ₅₀ was greater than 2000 mg/m ³ (rat). No fatalities occurred when rats were exposed to 25 mg/m ³ terephthalic acid, 6 hours per day, 5 days a week, for 4 weeks. The weight gain of the test animals was lower than normal. Exposing pregnant rats to concentrations of terephthalic acid as high as 10 mg/m ³ during the major organogenesis period did not result in any significant toxic or teratogenic effects in the dam or the fetus.

Section 12. Ecological Information

Ecotoxicity	>982 mg/l [EC ₅₀], 48 hours [Daphnia]. 514 mg/l [EC ₅₀], 96 hours [Daphnia]. >922 mg/l [LC ₅₀], 96 hours [Fish]. 922 mg/l, No effect, 96 hours [Fish]. >409 mg/l, No effect, 96 hours [Algae]. PTA is relatively non-toxic to aquatic organisms. Test results of the acute toxicity of terephthalic acid and its sodium salt for several freshwater species were conducted following relevant OECD protocols and in compliance with Good Laboratory Practices (GLP).
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Terephthalic acid has been shown to biodegrade in water under several test methods and in soil suspension

Continued on Next Page

inoculum, according to published reports. In a modified Sturm test (OECD Guideline 301B), over 60% of the theoretical CO₂ was generated within 5 days, and over 80% of the theoretical CO₂ was generated within 14 days, at two concentrations of terephthalic acid, meeting the criteria for "readily biodegradable."

Abiotic degradation, such as photolysis or hydrolysis, is not expected to be significant.

Terephthalic acid is not expected to bioconcentrate or bioaccumulate. A low bioconcentration factor of 19 is predicted using the estimated octanol-water partition coefficient (log K_{ow}) of 2 for undissociated terephthalic acid. Significant bioconcentration is unlikely if bioconcentration factors are less than 100 to 1000. Other evidence supports the expected lack of bioconcentration, including the biodegradability and the elimination of terephthalic acid and its metabolites in mammalian studies.

Section 13. Disposal Considerations

Waste Information Avoid contact with spilled materials and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities. Comply with all federal, state and local laws pertaining to waste management. Since the emptied containers retain product residue, follow product insert warnings even after container is emptied.

Consult your local or regional authorities.

Section 14. Transport Information

DOT Classification Not regulated.

Not regulated.

Marine Pollutant Not determined.

Special Provisions for Transport -

ADR/RID Classification

UN number Not available.
Proper shipping name Not regulated.
ADR/RID Class Not available.
Packing Group Not available.

IMO/IMDG Classification

Proper shipping name Not regulated.
IMDG Class Not available.
UN number Not available.
Packing Group Not available.
Marine Pollutant Not available.

ICAO/IATA Classification

Proper shipping name Not regulated.
IATA Class Not available.
UN number Not available.
Packing Group Not available.

Continued on Next Page

Section 15. Regulatory Information

U.S. Regulations	<p>US INVENTORY (TSCA): Listed on inventory.</p> <p>SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.</p> <p>SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370): TEREPHTHALIC ACID: Immediate (Acute) Health Hazard</p> <p>SARA 313 toxic chemical notification and release reporting: No products were found.</p> <p>CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4): This material is not regulated under CERCLA Sections 103 and 107.</p>
State Regulations	<p>Pennsylvania RTK: TEREPHTHALIC ACID: (environmental hazard, generic environmental hazard)</p> <p>Massachusetts RTK: TEREPHTHALIC ACID</p> <p>New Jersey: TEREPHTHALIC ACID</p> <p>California prop. 65: No products were found.</p>
Other Regulations	<p>AUSTRALIAN INVENTORY (AKCS): Listed on inventory.</p> <p>CANADA INVENTORY (DSL): Listed on inventory.</p> <p>CHINA INVENTORY (IECS): Listed on inventory.</p> <p>EC INVENTORY (EINECS/ELINCS): Listed on inventory.</p> <p>JAPAN INVENTORY (ENCS): Listed on inventory.</p> <p>KOREA INVENTORY (ECL): Listed on inventory.</p> <p>PHILIPPINE INVENTORY (PICCS): Listed on inventory.</p>

Section 16. Other Information**Label Requirements**

This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria. Handling and/or processing of this material may generate a dust which may cause mechanical irritation of the eyes, skin, nose and throat.

Hazardous Material Information System (U.S.A.)

Health	0
Fire Hazard	1
Reactivity	0

National Fire Protection Association (U.S.A.)

**HISTORY**

Date of issue 2/11/2002.
 Version 2
 Prepared by Product Stewardship

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Material Safety Data Sheet



1. Chemical Product and Company Identification

Product name DM 2,6-NDC (Dimethyl 2,6-naphthalene dicarboxylate)
MSDS# 000001123
Historic MSDS# 03265
Product Use Polymerisation.
Supplier BP Amoco Chemical Company
150 West Warrenville Road
Naperville, Illinois 60563-8460
USA
Tel: 1 (877) 701-2726
EMERGENCY HEALTH INFORMATION: 1 (800) 447-8735
EMERGENCY SPILL INFORMATION: 1 (800) 424-9300
CHEMTREC (USA)
OTHER PRODUCT INFORMATION 1 (866) 4 BP - MSDS
(866-427-6737 Toll Free - North America)
email: bpcares@bp.com

2. Composition / Information on Ingredients

Ingredient Name	CAS #	% by Weight	Exposure Limits
Dimethyl 2,6-naphthalene dicarboxylate	840-65-3	>99.9	None assigned.

3. Hazards Identification

Physical state Crystalline solid.
Color White.

Emergency Overview

This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria.

Routes of Entry Skin contact. Eye contact. Inhalation. Ingestion.

POTENTIAL HEALTH EFFECTS

Eyes No significant health hazards identified.
Skin No significant health hazards identified.
Inhalation No significant health hazards identified.
Ingestion No significant health hazards identified.

See Toxicological Information (section 11)

4. First-aid measures

Eye Contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact Wash with soap and water. Get medical attention if irritation develops.
Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Product Name DM 2,6-NDC (Dimethyl 2,6-naphthalene dicarboxylate)

Page: 1/4

Version 2

Date of issue 04/22/2003.

Format US-FULL

Language

(ENGLISH)

5. Fire-fighting measures

Flammability of the Product	May be combustible at high temperature.
Autoignition temperature	398 °C (Dust cloud in air); 190 °C (Dust layer in air)
Flash point	232 °C ASTM D-93
Explosion Limits	LOWER: 28.8 g/m3 (Dust in air)
Products of Combustion	These products are carbon oxides (CO, CO2).
Unusual fire/explosion hazards	High dust concentrations have a potential for combustion or explosion. This material is not explosive as defined by established regulatory criteria.
Fire Fighting Media and Instructions	In case of fire, use water spray (fog), foam or dry chemicals. Do not use water jet.
Protective Clothing (Fire)	Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

6. Accidental release measures

Personal Precautions	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5).
Environmental Precautions and Clean-up Methods	If emergency personnel are unavailable vacuum or carefully scoop up spilled materials and place in an appropriate container for disposal. Avoid creating dusty conditions and prevent wind dispersal. Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

7. Handling and storage

Handling	Avoid dusting when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

8. Exposure controls/personal protection

Occupational Exposure Limits	
Dimethyl 2,6-naphthalene dicarboxylate	None assigned.
Control Measures	Local exhaust ventilation should be provided. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Hygiene measures	Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.
Personal Protection	
Eyes	Chemical/Dust Goggles
Skin and Body	None required; however, use of protective clothing is good industrial practice.
Respiratory	None required; however, use of adequate ventilation is good industrial practice.
Hands	None required; however, use of gloves is good industrial practice. (Nitrile gloves.) The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions. Consult your supervisor or S.O.P. for special handling directions

Consult local authorities for acceptable exposure limits.

Product Name DM 2,6-NDC (Dimethyl 2,6-naphthalene dicarboxylate)	Page: 2/4		
Version 2	Date of Issue 04/22/2003.	Format US-FULL	Language (ENGLISH)

9. Physical and chemical properties

Physical state	Crystalline solid.
Odor	Odorless.
Color	White.
Melting Point / range	190°C
Density	0.9 to 0.98 g/cm ³ (Bulk density); 1.4 - 1.5 (intrinsic)
Vapor Pressure	10 torr at 222°C
Solubility	Very slightly soluble in cold water (<0.1%)

10. Stability and reactivity

Stability and Reactivity	The product is stable.
Conditions to avoid	Avoid dusting when handling and avoid all possible sources of ignition (spark or flame).
Incompatibility with Various Substances	None identified.
Hazardous Decomposition Products	Products of Combustion: carbon oxides (CO, CO ₂)
Hazardous Polymerization	Will not occur.

11. Toxicological information

Chronic toxicity

Carcinogenic Effects No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).

Mutagenic Effects No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.

Reproductive Effects No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin.

Teratogenic effects No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

Other information

Dimethyl-2,6-naphthalene dicarboxylate (DM-2,6-NDC): Studies have shown that DM-2,6-NDC is nonirritating to the eyes (PEIS: 6.7/110.0), and skin (PDIS: 0.0/8.0). It is not acutely toxic by ingestion (LD50 > 5g/kg, rats), or skin contact (LD50 > 2 g/kg, rabbits). No deaths were observed in an acute inhalation limit study conducted in rats at a respirable concentration of 2,150 mg/m³. DM-2,6-NDC is not a skin sensitizer to guinea pigs. A subchronic feeding study (90 day) was conducted and showed no adverse effects. A four-week inhalation study (0, 1.5 and 10 mg/3) resulted in no significant adverse effects. DM-2,6-NDC was not mutagenic in a Salmonella/Ames test, or in In Vitro HGPRT assay. NDC was also negative in an In Vitro chromosome aberration assay.

12. Ecological information

Other Ecological Information

Ecotoxicity tests have not been conducted on this product. The following evaluation uses inferences from structurally similar chemicals, i.e., quantitative structure activity relationships (QSAR). Consequently, this information must be considered as an estimate.

The QSAR estimates of acute toxicity to aquatic organisms are between 10 and 60 mg/L. The estimated half-life for biodegradation exceeds 100 days because the chemical has at least two aromatic rings. The estimated bioconcentration factor is less than 100, suggesting that the chemical is not expected to bioconcentrate to a significant degree. The estimated Henry's Law constant suggests that this chemical will volatilize slowly from open water.

Product Name: DM 2,6-NDC (Dimethyl 2,6-naphthalene dicarboxylate)	Page: 3/4		
Version 2	Date of Issue: 04/22/2003	Format: US-FULL	Language (ENGLISH)

13. Disposal considerations

Waste Information

Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities. Dispose of in accordance with all applicable local and national regulations.

Consult your local or regional authorities.

14. Transport information

Not classified as hazardous for transport (DOT, TDG, UN, IMO, IATA/ICAO).

15. Regulatory information

U.S. Federal Regulations

US INVENTORY (TSCA): Listed on inventory.

SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.
SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370): Defined as non-hazardous by OSHA under 29 CFR 1910.1200(d).
SARA 313 toxic chemical notification and release reporting: No products were found.
CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4): This material is not regulated under CERCLA Sections 103 and 107.

State Regulations

No products were found.

California prop. 65: No products were found.

Inventories

AUSTRALIAN INVENTORY (AICS): Listed on inventory.

CANADA INVENTORY (DSL): Not listed.

CHINA INVENTORY (IECS): Listed on inventory.

EC INVENTORY (EINECS): Listed on inventory.

JAPAN INVENTORY (ENCS): Listed on inventory.

KOREA INVENTORY (ECL): Listed on inventory.

PHILIPPINE INVENTORY (PICCS): Listed on inventory.

16. Other information

Label Requirements

This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria.

Hazardous Material Information System (U.S.A.)

Health	
Fire Hazard	
Physical Hazard	0
Personal Protection	X

National Fire Protection Association (U.S.A.)



HISTORY

Date of Issue

04/22/2003.

Date of Previous Issue

10/4/2002.

Prepared by

Product Stewardship

Notice to Reader

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Product Name DM 2,6-NDC (Dimethyl 2,6-naphthalene dicarboxylate)	Page: 4/4		
Version 2	Date of Issue 04/22/2003.	Format US-FULL	Language
(ENGLISH)			



ZEP Manufacturing Company
 Acuity Specialty Products Group, Inc.
 P.O. Box 2015
 Atlanta, GA 30301
 1-877-I-BUY-ZEP (428-9937)
 www.zep.com

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST TRANQUIL MEADOWS
Product Use Odor Counteractant
Product Code 3328
Date of issue 07/02/07 **Supersedes** 10/01/04

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency

INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency

CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects

Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects

No known chronic effects from exposure

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact

Wash with soap and water. If irritation persists, get medical attention.

Inhalation

If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.
Flammability Not applicable.
Fire Hazard Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight.

Section 8. Exposure Controls, Personal Protection

Personal Protection **Protective Clothing (Pictograms)**
Eyes Recommended: Safety glasses. 
Body No special protective clothing is required.
Respiratory Avoid direct inhalation of spray.

Section 9. Physical and Chemical Properties

Physical State Aerosol. (Liquid fill) **Color** Colorless.
pH Not available **Odor** Pleasant. Floral.
Boiling Point 55.6°C (132°F) **Vapor Pressure** Not available.
Specific Gravity 0.814 (Water = 1) **Vapor Density** Not available.
Solubility Partially soluble in water. **Evaporation Rate** Not available.
VOC (Consumer) 29.75% 242 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Waste must be disposed of in accordance with federal, **Waste Stream** Code: - (Not applicable.)
Information state and local environmental control regulations. **Classification:** - (Non-hazardous waste)
Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
 Diethylene Glycol Monoethyl Ether (Glycol Ether)
 Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether
 All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethylene Glycol Monoethyl Ether

Section 16. Other Information

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
 Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*



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 P.O. Box 2015
 Atlanta, GA 30301
 1-877-I-BUY-ZEP (428-9937)
 www.zep.com

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST PINK GRAPEFRUIT
Product Use Odor Counteractant
Product Code 3341
Date of issue 07/03/07 **Supersedes** 02/19/04

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
PROPANE; liquefied petroleum gas	68476-85-7	20-30	ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects

Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects

No known chronic effects from exposure

See Toxicological Information (section 11)

HMIS

Health	1
Physical Hazard	1
Reactivity	0
Personal Protection	N/A

Section 4. First Aid Measures

Eye Contact

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact

Wash with soap and water. If irritation persists, get medical attention.

Inhalation

If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.
Flammability Not applicable.
Fire Hazard Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid.	Color	Colorless.
pH	Not available.	Odor	Pleasant. Lemongrass.
Boiling Point	55.6°C (132°F) - Initial	Vapor Pressure	Not available.
Specific Gravity	0.811 (Water = 1)	Vapor Density	Not available.
Solubility	Partially soluble in water.	Evaporation Rate	Not available.
		VOC (Consumer)	29.8% 240.7 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream Code:** - (Not applicable.)
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
 Diethylene Glycol Monoethyl Ether (Glycol Ether)
 Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether
 All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethylene Glycol Monoethyl Ether

Section 16. Other Information

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
 Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*



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Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST LEMONGRASS
Product Use Odor Counteractant
Product Code 3343
Date of issue 07/03/07 **Supersedes** 11/06/03

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
PROPANE; liquefied petroleum gas	68476-85-7	20-30	ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may cause skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.
Flammability Not applicable.
Fire Hazard Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight.

Section 8. Exposure Controls, Personal Protection**Personal Protection****Protective Clothing (Pictograms)**

Eyes Recommended: Safety glasses.
Body No special protective clothing is required.
Respiratory Avoid direct inhalation of spray.

**Section 9. Physical and Chemical Properties**

Physical State Liquid. **Color** Colorless.
pH Not available. **Odor** Pleasant. Lemongrass.
Boiling Point 55.6°C (132°F) **Vapor Pressure** Not available.
Specific Gravity 0.82 (Water = 1) **Vapor Density** Not available.
Solubility Partially soluble in water. **Evaporation Rate** Not available.
VOC (Consumer) 30% 2.0 (lb/gal) 243 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified.
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CQ) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream Code:** - (Not applicable.)
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
Diethylene Glycol Monoethyl Ether (Glycol Ether)
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether
All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethylene Glycol Monoethyl Ether

Section 16. Other Information

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
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 www.zep.com

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST WINTER FRUIT
Product Use Odor Counteractant
Product Code 3345
Date of issue 07/03/07 **Supersedes** 11/06/03

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-1-BUY-ZEP (428-9937)

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	Not established
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
PROPANE; liquefied petroleum gas	68476-85-7	20-30	ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects

Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects

No known chronic effects from exposure

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact

Wash with soap and water. If irritation persists, get medical attention.

Inhalation

If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.
Flammability Not applicable.
Fire Hazard Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight.

Section 8. Exposure Controls, Personal Protection**Personal Protection****Protective Clothing (Pictograms)**

Eyes Recommended: Safety glasses.
Body No special protective clothing is required.
Respiratory Avoid direct inhalation of spray.

**Section 9. Physical and Chemical Properties**

Physical State Liquid. **Color** Colorless.
pH Not available. **Odor** Pleasant. Spicy-Sweet.
Boiling Point 55.6°C (132°F) **Vapor Pressure** Not available.
Specific Gravity 0.82 (Water = 1) **Vapor Density** Not available.
Solubility Partially soluble in water. **Evaporation Rate** Not available.
VOC (Consumer) 30% 2.0 (lb/gal) 243 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CQ) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream Code:** - (Not applicable.)
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
Diethylene Glycol Monoethyl Ether (Glycol Ether)
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether
All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethylene Glycol Monoethyl Ether

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
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Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST RASPBERRY
Product Use Odor Counteractant
Product Code 3346
Date of issue 07/09/07 **Supersedes** 05/20/04

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-1-BUY-ZEP (428-9937)

For Medical Emergency

INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency

CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

HMIS

Health	1
Phys. Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.
Flammability Not applicable.
Fire Hazard Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid.	Color	Colorless.
pH	Not available.	Odor	Pleasant. Raspberry.
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not available.
Specific Gravity	0.825 (Water = 1)	Vapor Density	Not available.
Solubility	Partially soluble in water.	Evaporation Rate	Not available.
		VOC (Consumer)	30% 204 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream Code:** - (Not applicable.)
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
 Diethylene Glycol Monoethyl Ether (Glycol Ether)
 Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether
 All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethylene Glycol Monoethyl Ether

Section 16. Other Information

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
 Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*



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 www.zep.com

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name Meter Mist Autumn Harvest
Product Use Odor Counteractant
Product Code 3354
Date of issue 07/10/07 **Supersedes** 08/18/04

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-1-BUY-ZEP (428-9937)

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation. Avoid breathing vapors or spray mists.

Ingestion Unlikely in this form.

HMIS

Health	1
Physical Hazard	1
Reactivity	0
Personal Protection	N/A

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.
Flammability Not applicable.
Fire Hazard CONTENTS UNDER PRESSURE. Container explosion may occur under fire conditions or when heated.



Fire-Fighting Procedures Use DRY chemicals, CO₂, alcohol foam or water spray. Cool closed containers exposed to fire with water.

Section 6. Accidental Release Measures

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes. Wash thoroughly after handling.
Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid. (Aerosol.)	Color	Colorless.
pH	Not applicable	Odor	Pleasant. Fruity.
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not determined
Specific Gravity	0.82 (Water = 1)	Vapor Density	Not determined
Solubility	Partially soluble in water.	Evaporation Rate	Not determined
		VOC (Consumer)	30% 2.0 (lb/gal) 243 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Code: - (Not applicable.)
 Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
 Diethylene Glycol Monoethyl Ether (Glycol Ethers)
 Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether
 All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethylene Glycol Monoethyl Ether

Section 16. Other Information

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*





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Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST TRANQUIL MEADOWS
Product Use Odor Counteractant
Product Code 3328
Date of issue 07/02/07 **Supersedes** 10/01/04

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

For Medical Emergency
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 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.



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Material Safety Data Sheet and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST PINK GRAPEFRUIT
Product Use Odor Counteractant
Product Code 3341
Date of issue 07/03/07 **Supersedes** 02/19/04

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-1-BUY-ZEP (428-9937)

A R TRANSPORT INC
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 In the District of Columbia (202) 483-7616

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects

Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects

No known chronic effects from exposure

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact

Wash with soap and water. If irritation persists, get medical attention.

Inhalation

If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.



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Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST LEMONGRASS
Product Use Odor Counteractant
Product Code 3343
Date of issue 07/03/07 **Supersedes** 11/06/03

Emergency Telephone Numbers For MSDS Information:
 Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

For Medical Emergency
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For a Transportation Emergency
 CHEMTREC:
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 In the District of Columbia (202) 483-7616

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
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 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Eye contact, Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

HMIS	
Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure
 See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.



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Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST WINTER FRUIT
Product Use Odor Counteractant
Product Code 3345
Date of issue 07/03/07 **Supersedes** 11/06/03

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
Compliance Services 1-877-I-BUY-ZEP (428-9937)

A R TRANSPORT INC
2513 HWY 20
DECATUR AL 35601

For Medical Emergency
INFOTRAC:
(877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
CHEMTREC:
(800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Printing date: 10/05/07

Prepared by Compliance Services Group
Acuity Specialty Products Group
1420 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure
See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.



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Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST RASPBERRY
Product Use Odor Counteractant
Product Code 3346
Date of issue 07/09/07 **Supersedes** 05/20/04

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

For Medical Emergency
 INFOTRAC:
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For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
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Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE: dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL: ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE: liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Eye contact, Inhalation.
Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.
Eyes Direct contact may cause irritation and redness.
Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.
Ingestion Unlikely in this form.

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.
Chronic Effects No known chronic effects from exposure
 See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.
Skin Contact Wash with soap and water. If irritation persists, get medical attention.
Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.
Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.



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 www.zep.com

Material Safety Data Sheet and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name Meter Mist Autumn Harvest
Product Use Odor Counteractant
Product Code 3354
Date of issue 07/10/07 **Supersedes** 08/18/04

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-1-BUY-ZEP (428-9937)

For Medical Emergency

INFOTRAC:
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For a Transportation Emergency

CHEMTREC:
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A R TRANSPORT INC
 2513 HWY 20
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Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation. Avoid breathing vapors or spray mists.

Ingestion Unlikely in this form.

Routes of Entry

Eye contact. Inhalation.

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects

Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects

No known chronic effects from exposure

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact

Wash with soap and water. If irritation persists, get medical attention.

Inhalation

If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

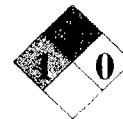
Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable

Flammability Not applicable.

Fire Hazard CONTENTS UNDER PRESSURE. Container explosion may occur under fire conditions or when heated.

Fire-Fighting Procedures Use DRY chemicals, CO₂ alcohol foam or water spray. Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**


Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes. Wash thoroughly after handling.

Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection**Personal Protection****Protective Clothing (Pictograms)**

Eyes Recommended: Safety glasses. 

Body No special protective clothing is required

Respiratory Avoid direct inhalation of spray.

Section 9. Physical and Chemical Properties

Physical State Liquid. (Aerosol.) **Color** Colorless.

pH Not applicable **Odor** Pleasant. Fruity.

Boiling Point 55.6°C (132°F) **Vapor Pressure** Not determined

Specific Gravity 0.82 (Water = 1) **Vapor Density** Not determined

Solubility Partially soluble in water. **Evaporation Rate** Not determined

VOC (Consumer) 30% 2.0 (lb/gal) 243 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility None identified

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.

Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream Code:** - (Not applicable.) **Classification:** - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity

DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
Diethylene Glycol Monoethyl Ether (Glycol Ethers)

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether

All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethylene Glycol Monoethyl Ether

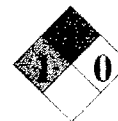
Section 16. Other Information

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
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Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable
 Flammability Not applicable.
 Fire Hazard Container explosion may occur under fire conditions or when heated.
 Fire-Fighting Procedures Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
 Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid.	Color	Colorless.
pH	Not available.	Odor	Pleasant. Spicy-Sweet.
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not available.
Specific Gravity	0.82 (Water = 1)	Vapor Density	Not available.
Solubility	Partially soluble in water.	Evaporation Rate	Not available.
		VOC (Consumer)	30% 2.0 (lb/gal) 243 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
 Incompatibility None identified
 Hazardous Polymerization Will not occur.
 Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available
 Biodegradable/OECD Not available

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Code: - (Not applicable.)
 Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
 DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
 Diethylene Glycol Monoethyl Ether (Glycol Ether)
 Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether
 All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethylene Glycol Monoethyl Ether

Section 16. Other Information

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
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 www.zep.com

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name ZEP METER MIST CINNAMON
Product Use Odor Counteractant
Product Code 3271
Date of issue 04/25/05 **Supersedes** 02/12/99

Emergency Telephone Numbers For MSDS Information:
 Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

Printing date: 10/05/07

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may dry skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects

Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects

No known chronic effects from exposure.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact

Wash with soap and water. If irritation persists, get medical attention.

Inhalation

If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

**Section 5. Fire Fighting Measures**

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.
Flammability Not applicable.
Fire Hazard Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

Section 6. Accidental Release Measures

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid.	Color	Colorless.
pH	Not available.	Odor	Cinnamon
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not available.
Specific Gravity	0.75 (Water = 1)	Vapor Density	Not available.
Solubility	Partially soluble in water.	Evaporation Rate	Not available.
		VOC (Consumer)	30% 1.86 (lb/gal) 224.7 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified.
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Code: - (Not applicable.)
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
Diethylene Glycol Monoethyl Ether (Glycol Ethers)
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether
All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Benzene, Formaldehyde, Acetaldehyde, Ethylene Glycol Monoethyl Ether

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
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Material Safety Data Sheet and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST COUNTRY GARDEN
Product Use Odor Counteractant
Product Code 3307
Date of issue 08/10/05 **Supersedes** 02/10/99

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-1-BUY-ZEP (428-9937)

For Medical Emergency

INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency

CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

Printing date: 10/05/07

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55 - 65	ACGIH TLV / OSHA PEL (United States). TWA: 750 ppm 8 hour(s). ACGIH / OSHA (United States). STEL: 1000 ppm 15 minute(s).
PROPANE; liquefied petroleum gas	68476-85-7	20 - 30	ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	ACGIH TLV / OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	Not established

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may dry skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects

Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects

No known chronic effects from exposure.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact

Wash with soap and water. If irritation persists, get medical attention.

Inhalation

If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Not applicable. **Flammable Limits** Not applicable.
Flammability Non-flammable. (CSMA Method)
Fire Hazard CONTENTS UNDER PRESSURE. Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage CONTENTS UNDER PRESSURE. Do not puncture or incinerate. Store below 120°F. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid. (Aerosol.)	Color	Clear. Colorless.
pH	Not applicable	Odor	Pleasant. Floral.
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not determined.
Specific Gravity	0.826 (Water = 1)	Vapor Density	Not determined.
Solubility	Partially soluble in water.	Evaporation Rate	Not determined.
		VOC (Consumer)	30% 1.87 (lb/gal) 224.6 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified.
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals

Acetone:
 ORAL (LD50): Acute: 9750 mg/kg [Mouse].
 DERMAL (LD50): Acute: 20000 mg/kg [Rabbit].
 VAPOR (LC50): Acute: 16000 ppm 4 hour(s) [Rat].

Ethanol:
 ORAL (LD50): Acute: 7060 mg/kg [Rat].

Diethylene Glycol Monoethyl Ether:
 ORAL (LD50): Acute: 10502 mg/kg [Rat]. 6301 mg/kg [Mouse].
 DERMAL (LD50): Acute: 9143 mg/kg [Rabbit].

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Non-hazardous waste
 Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 5. Fire Fighting Measures

Flash Point Not applicable. **Flammable Limits** Not applicable.
Flammability Non-flammable. (CSMA Method)
Fire Hazard CONTENTS UNDER PRESSURE. Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage CONTENTS UNDER PRESSURE. Do not puncture or incinerate. Store below 120°F. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection**Personal Protection****Protective Clothing (Pictograms)**

Eyes Recommended: Safety glasses.
Body No special protective clothing is required.
Respiratory Avoid direct inhalation of spray.

**Section 9. Physical and Chemical Properties**

Physical State	Liquid. (Aerosol.)	Color	Clear. Colorless.
pH	Not applicable	Odor	Pleasant. Floral.
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not determined.
Specific Gravity	0.826 (Water = 1)	Vapor Density	Not determined.
Solubility	Partially soluble in water.	Evaporation Rate	Not determined.
		VOC (Consumer)	30% 1.87 (lb/gal) 224.6 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified.
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals **Acetone:**
 ORAL (LD50): Acute: 9750 mg/kg [Mouse].
 DERMAL (LD50): Acute: 20000 mg/kg [Rabbit].
 VAPOR (LC50): Acute: 16000 ppm 4 hour(s) [Rat].
Ethanol:
 ORAL (LD50): Acute: 7060 mg/kg [Rat].
Diethylene Glycol Monoethyl Ether:
 ORAL (LD50): Acute: 10502 mg/kg [Rat]. 6301 mg/kg [Mouse].
 DERMAL (LD50): Acute: 9143 mg/kg [Rabbit].

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Non-hazardous waste
 Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information**U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:

Diethylene Glycol Monoethyl Ether (Glycol Ethers)

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether

All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Benzene, Formaldehyde, Acetaldehyde, Ethylene Glycol Monoethyl Ether

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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Material Safety Data Sheet and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name ZEP METER MIST CINNAMON
Product Use Odor Counteractant
Product Code 3271
Date of issue 04/25/05 **Supersedes** 02/12/99

Emergency Telephone Numbers For MSDS Information:
 Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Scaboard Industrial Blvd.
 Atlanta, GA 30318

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

Printing date: 10/05/07

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
PROPANE; liquefied petroleum gas	68476-85-7	20-30	ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may dry skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 15. Regulatory Information**U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:

Diethylene Glycol Monoethyl Ether (Glycol Ethers)

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether

All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Benzene, Formaldehyde, Acetaldehyde, Ethylene Glycol Monoethyl Ether

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**Section 5. Fire Fighting Measures**

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.
Flammability Not applicable.
Fire Hazard Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

Section 6. Accidental Release Measures

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid.	Color	Colorless.
pH	Not available.	Odor	Cinnamon
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not available.
Specific Gravity	0.75 (Water = 1)	Vapor Density	Not available.
Solubility	Partially soluble in water.	Evaporation Rate	Not available.
		VOC (Consumer)	30% 1.86 (lb/gal) 224.7 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified.
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.

Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Code: - (Not applicable.)
 Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity

DOT Classification ORM-D

UN number Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
 Diethylene Glycol Monoethyl Ether (Glycol Ethers)
 Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether
 All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Benzene, Formaldehyde, Acetaldehyde, Ethylene Glycol Monoethyl Ether

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



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Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name Meter Mist Mango
Product Use Odor Counteractant
Product Code 3327
Date of issue 07/02/07 **Supersedes** 08/18/04

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-1-BUY-ZEP (428-9937)

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may irritate skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

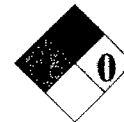
Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.

Flammability Not applicable.

Fire Hazard CONTENTS UNDER PRESSURE. Container explosion may occur under fire conditions or when heated.

Fire-Fighting Procedures Use DRY chemicals, CO₂, water spray or foam. Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes. Wash thoroughly after handling.

Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid. (Aerosol.)	Color	Colorless.
pH	Not applicable	Odor	Pleasant. Mango
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not determined
Specific Gravity	0.82 (Water = 1)	Vapor Density	Not determined
Solubility	Partially soluble in water.	Evaporation Rate	Not determined
		VOC (Consumer)	30% 2.0 (lb/gal) 243 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility None identified

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.

Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream Code:** - (Not applicable.)
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity

DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
Diethylene Glycol Monoethyl Ether (Glycol Ethers)
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether
All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethylene Glycol Monoethyl Ether

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.





ZEP Manufacturing Company
 Acuity Specialty Products Group, Inc.
 P.O. Box 2015
 Atlanta, GA 30301
 1-877-I-BUY-ZEP (428-9937)

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST - SUGAR AND SPICE
Product Use Odor Counteractant
Product Code 3324
Date of issue 10/01/04 **Supersedes**

Emergency Telephone Numbers For MSDS Information:
 Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Eye contact. Inhalation.
Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may dry skin and cause irritation.
Eyes Direct contact may cause irritation and redness.
Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.
Ingestion Unlikely in this form.

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.
Chronic Effects No known chronic effects from exposure.

See Toxicological Information (section 11)

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.
Skin Contact Wash with soap and water. If irritation persists, get medical attention.
Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.
Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.
Flammability Not applicable.
Fire Hazard Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Aerosol. (Liquid fill)	Color	Colorless.
pH	Not available.	Odor	Pleasant. Vanilla/Cinnamon.
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not available.
Specific Gravity	0.82 (Water = 1)	Vapor Density	Not available.
Solubility	Partially soluble in water.	Evaporation Rate	Not available.
		VOC (Consumer)	29.75% 244 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified.
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Code: - (Not applicable).
 Classification: - (Non-hazardous waste)
Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
 Diethylene Glycol Monoethyl Ether (Glycol Ethers)
 Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether

State Regulations California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Benzene, Formaldehyde, Acetaldehyde, Ethylene Glycol Monoethyl Ether

Section 16. Other Information

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
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 Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*



ZEP Manufacturing Company
 Acuity Specialty Products Group, Inc.
 P.O. Box 2015
 Atlanta, GA 30301
 1-877-1-BUY-ZEP (428-9937)
 www.zep.com

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name ZEP METER MIST FRENCH VANILLA
Product Use Odor Counteractant
Product Code 3312
Date of issue 04/25/05 **Supersedes** 02/10/99

Emergency For MSDS Information:

Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-1-BUY-ZEP (428-9937)

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

For Medical Emergency

INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency

CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Printing date: 10/05/07

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	Not established
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
PROPANE; liquefied petroleum gas	68476-85-7	20-30	ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Eye contact. Inhalation.
Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may dry skin and cause irritation.
Eyes Direct contact may cause irritation and redness.
Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.
Ingestion Unlikely in this form.

HMIS	
Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.
Skin Contact Wash with soap and water. If irritation persists, get medical attention.
Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.
Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.
Flammability Not applicable.
Fire Hazard Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid.	Color	Colorless.
pH	Not available.	Odor	Vanilla
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not available.
Specific Gravity	0.826 (Water = 1)	Vapor Density	Not available.
Solubility	Partially soluble in water.	Evaporation Rate	Not available.
		VOC (Consumer)	30% 1.86 (lb/gal) 222.7 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified.
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream Code:** - (Not applicable.)
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
 Diethylene Glycol Monoethyl Ether (Glycol Ethers)
 Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether
 All Components of this product are listed or exempt from listing on TSCA inventory.

State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Benzene, Formaldehyde, Acetaldehyde, Ethylene Glycol Monoethyl Ether

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Material Safety Data Sheet
Used to comply with OSHA's Hazard
Communication Standard, 29 CFR 1910.1200
Imperial Item No. # 071592-0

SECTION 1 - NAME AND PRODUCT

NINGBO DAHUA GRINDING WHEEL CO. LTD
INDUSTRIAL AREA, HENGXI TOWN, YINZHOU,
NINGBO, CHINA
PHONE: 0086-574-88065038
FAX: 0086-574-88065038
Updated: 1/06
Product: All Type 27,28,29, and Type 1 Wheels.

NFPA HAZARD RATING CODE
Flammability Rating
X
Reactivity Rating
X
Health Hazard Rating
1
Rating X

SECTION II - COMPOSITION

Ingredient	% By Weight	OSHA Regulate	CAS #	OSHA PEL	ACGIH TLV	Other Limits	Carcinogen
Aluminum Oxide	15-20	NO	1344-28-1	N/A	10mg/m	N/A	NO
Silicon Carbide	N/A	NO	409-21-2	N/A	N/A	N/A	NO
Zirconium Oxide	50-70	NO	1314-23-4	N/A	10mg/m	N/A	NO
Calcium Hydroxide	N/A	NO	N/A	N/A	5mg/m	N/A	NO
Barium Sulfate	0-7	NO	NA	0.5mg/m	10mg/m	N/A	NO
Iron Sulfide	0-1	NO	1317-37-9	N/A	N/A	N/A	NO
Fluoride	0-5	NO	16984-48-8	2.5mg/m	2.5mg/m	N/A	NO
Phenolic Resin	0-18	NO	9003-35-4	5 P.P.M.	5 P.P.M.	N/A	NO
Fiber Glass	0-5	NO	N/A	15mg/m	10mg/m	N/A	NO
Aluminum Or Steel	0.1-1	NO	N/A	N/A	N/A	N/A	NO
Zinc	N/A	NO	N/A	N/A	N/A	N/A	NO

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	N/A	Specific Gravity (H2O=1)	2-4
Vapor Pressure (mm Hg.)	N/A	Melting Point	N/A
Vapor Density (AIR=1)	N/A	Evaporation Rate	N/A
Solubility in Water	Slight	Appearance/Odor	Dark colored solid. May give off some odor in use.

SECTION IV - FIRE AND EXPLOSION DATA

Means of Extinction	Water or carbon dioxide. Lower and Upper Explosion Limits		N/A
Flammable Limits	N/A	Special Fire Fighting Procedures	None
Flash Point	N/A	Unusual Fire or Explosion Hazards	None

SECTION V - REACTIVITY DATA

Stable - Avoid excessive moisture, high relative humidity, temperature extremes and contact with acids or solvents.
Not incompatible with any materials.
Hazardous Polymerization will not occur.
Dust and organic fumes are generated in use. Do not exceed TLV's.

SECTION VI - HEALTH HAZARD DATA

Route(s) of Entry Signs and Symptoms of Exposure		Emergency and First-Aid procedures
Dust Inhalation	May cause coughing and shortness of breath during grinding. May effect breathing capacity.	Terminate exposure and remove to fresh air. Obtain medical assistance.
Ingestion	No known adverse effects, but not recommended.	Obtain medical assistance.
Absorption	Not absorbed through skin.	N/A
Skin Contact	Grinding wheel may cause abrasions. Dust may cause skin irritation.	Terminate exposure and remove to fresh air. Obtain medical assistance.
Eye	Dust or fumes may cause eye irritation.	Fresh air and medical assistance.
Other	Excessive noise levels may exist in use.	Cease use. Obtain medical assistance.

Medical conditions such as emphysema and astigmatic may be aggravated during grinding.

SECTION VII - STORAGE HANDLING AND USE PROCEDURES.

Handling and storage procedures-Avoid damage to wheel. Do not drop. Do not use a wheel that has been damaged or dropped. Avoid excessive temperatures in storage. Always handle in accordance with ANSIB7.1.
Normal clean up procedures should be used if material is released.
Dispose of waste in a sanitary landfill in accordance with state, local and federal regulations.
Always use in accordance with ANSI Z43.1 and OSHA 1910.215. Do not use dropped or damage wheels. Do not use without machine guard in place. Do not exceed maximum RPM on wheel.

SECTION VIII - CONTROL MEASURES

Requirements and Referrals.	
Protection	OSHA or NIOSH approved respirator if TLV'S exceeded. See OSHA 29 CFR 1910.134
Respiratory	Local and mechanical exhaust recommended. See ANSI Z43.1 Refer to OSHA 29 CFR 1910.134.
Ventilation:	Not required but use if desired.
Protective Gloves	Required. Refer to OSHA 29 CFR 1910.133.
Eye Protective	Required. Refer to OSHA 29 CFR 1910.95.
Hearing Protection	Apron and / or face shield if desired.
Other	Wash with soap and water after handling and grinding.
Hygienic Practices	

COMPANY USE

The information and recommendations set forth herein are taken from sources and references believed to be Accurate and complete as of the date hereof. However, NINGBO DAHUA GRINDING WHEEL CO. LTD. Makes no expressed or implied warranty with respect to the accuracy of the information or the suitability of the recommendations, and assumes no liability to any user thereof. We cannot guarantee that the risks referred to above are the only risks present. The final choice of the application of product is thus the sole responsibility of the user.



Giant Industries, Inc.
900 N. Westwood Ave. Toledo, Ohio 43607
(419) 531-4600 ■(419) 531-6836
www.giantpumps.com

Immediate Health:NO Delayed Health:NO Fire:NO Pressure:NO
Reactivity:NO

SARA Toxic Release Inventory (TRI) (313):
There are no components in this product on the SARA 313 list.

Toxic Substances Control Act (TSCA) Status:
All component(s) of this material is(are) listed on the EPA/TSCA Inventory of
Chemical Substances.

Other Chemical Inventories:
Component(s) of this material is (are) listed on the Australian AICS,
Canadian DSL, European EINECS

State Regulation
This material is not regulated by California Prop 65, New Jersey Right-to-Know
Chemical List or Pennsylvania Right-To-Know Chemical List. However for
details on your regulation requirements you should contact the appropriate
agency in your state.

SECTION 16 OTHER INFORMATION

HMIS Rating (Health, Fire, Reactivity): 0, 1, 0

Revision#: 3

Revision Date: 01/14/2001

Revisions since last change (discussion): This Material Safety Data Sheet has
changed because Equiva Services LLC. has implemented new software to generate
the sheet. There will be slight differences in the hazard and precautionary
language as we incorporate the guidance contained in the ANSI MSDS standard
(ANSI Z400.1-1998). There are no significant changes to the health, safety or
precautionary messages. We encourage you to take the opportunity to reread
the sheet and review the information contained.

SECTION 17 LABEL INFORMATION

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF
PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD
COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL
IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND
MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR
OTHER RELATED REGULATORY REQUIREMENTS.

PRODUCT CODES: 50205

FormulaShell™ SAE 20W - 50



Giant Industries, Inc.
900 N. Westwood Ave. Toledo, Ohio 43607
(419) 531-4600 ■ (419) 531-6836
www.giantpumps.com

SECTION 13 DISPOSAL CONSIDERATIONS

RCRA Information:

Under RCRA, it is the responsibility of the user of the material to determine, at the time of the disposal, whether the material meets RCRA criteria for hazardous waste. This is because material uses, transformations, mixtures, processes, etc. may affect the classification. Refer to the latest EPA, state and local regulations regarding proper disposal.

SECTION 14 TRANSPORT INFORMATION

US Department of Transportation Classification

This material is not subject to DOT regulations under 49 CFR Parts 171-180.

Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail or highway in a tank with a capacity of 3500 gallons or more, it is subject to these requirements. Mixtures or solutions containing 10% or more of this product may also be subject to this rule.

International Air Transport Association

Not regulated under IATA rules.

International Maritime Organization Classification

Not regulated under International Maritime Organization rules.

SECTION 15 REGULATORY INFORMATION

FEDERAL REGULATORY STATUS

OSHA Classification:

Product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 19.10.1200, because it carries the occupational exposure limit for mineral oil mist.

Ozone Depleting Substances (40 CFR 82 Clean Air Act):

This material does not contain nor was it directly manufactured with any Class I or Class II ozone depleting substances.

Superfund Amendment & Reauthorization Act (SARA) Title III:

There are no components in this product on the SARA 302 list.

SARA Hazard Categories (311/312):



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www.giantpumps.com

or highway in a tank with a capacity of 3500 gallons or more, it is subject to these requirements. Mixtures or solutions containing 10% or more of this product may also be subject to this rule.

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flames or heat. Keep container closed and drum bungs in place.

Name and Address

Equilon Enterprises LLC
P. O. Box 4453
Houston, TX 77210-4453

TRANSPORTATION EMERGENCY CHEMTEL (877) 276-7283

HEALTH EMERGENCY CHEMTEL (877) 276-7283

ADMINISTRATIVE INFORMATION

COMPANY ADDRESS: Equilon Enterprises LLC, P. O. Box 4453, Houston, TX. 77210-4453

Company Product Stewardship & Regulatory Compliance Contact: Timothy W Childs

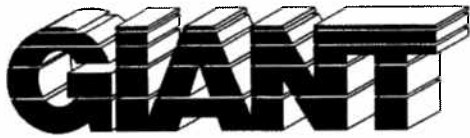
Phone Number: (281) 874-7708

MSDS FAX-BACK Phone Number: (877) 276-7285

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT DATA. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

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Giant Industries, Inc.
900 N. Westwood Ave. Toledo, Ohio 43607
(419) 531-4600 ■(419) 531-6836
www.giantpumps.com

ATTENTION!

PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE OIL ACNE OR DERMATITIS. USED GASOLINE ENGINE OIL HAS BEEN SHOWN TO CAUSE CANCER IN LABORATORY ANIMALS.

Precautionary Measures:

Avoid prolonged or repeated contact with eyes, skin and clothing. Wash thoroughly after handling.

FIRST AID

Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

Skin Contact: Remove contaminated clothing and shoes and wipe excess from skin. Flush skin with water, then wash with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned.

Eye Contact: Flush with water. If irritation occurs, get medical attention.

Ingestion: Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical attention.

FIRE

In case of fire, Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO₂) to extinguish flames. Do not use a direct stream of water. Material will float and can be re-ignited on surface of water.

SPILL OR LEAK

Dike and contain spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

CONTAINS: Hydrotreated heavy paraffinic distillate, 64742-54-7; Hydrotreated middle distillate, 64742-46-7; Hydrotreated heavy naphthenic distillate, 64742-52-5; Proprietary Phenolic Additives, Proprietary

NFPA Rating (Health, Fire, Reactivity): 0, 1, 0

HMIS Rating (Health, Fire, Reactivity): 0, 1, 0

TRANSPORTATION

US Department of Transportation Classification

This material is not subject to DOT regulations under 49 CFR Parts 171-180.

Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail



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SECTION 10 REACTIVITY AND STABILITY

Stability:

Material is stable under normal conditions.

Conditions to Avoid:

Avoid heat and open flames.

Materials to Avoid:

Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products:

Thermal decomposition products are highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases will evolve when this material undergoes pyrolysis or combustion. Aldehydes, Carbon Monoxide, Carbon Dioxide, Hydrogen Sulfide, Ketones, Nitrogen Oxides and other unidentified organic compounds may be formed upon combustion.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity

Dermal LD50 >5.0 g/kg(Rabbit) OSHA: Non-Toxic Based on components(s)

Eye Irritation Draize 0.67 / 110 [Rabbit, 24 HOUR(S)] OSHA:

Non-Irritating Based on components(s)

Oral LD50 >5.0 g/kg(Rat) OSHA: Non-Toxic Based on components(s)

Skin Irritation Draize <2.0 / 8.0, nonirritating [Rabbit, 24 HOUR(S)]

OSHA: Non-Irritating Based on components(s)

Carcinogenicity Classification

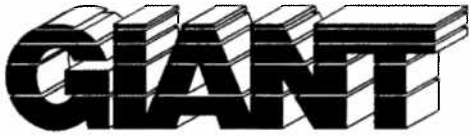
Heavy Duty Motor Oil

NTP: No IARC: Not Reviewed ACGIH: No OSHA: No

SECTION 12 ECOLOGICAL INFORMATION

Environmental Impact Summary:

There is no ecological data available for this product. However, this product is an oil. It is persistent and does not readily biodegrade. However, it does not bioaccumulate.



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take into account such factors as job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate the best protection is provided by:

Neoprene, or Nitrile Rubber

Respiratory Protection:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include:

For Mist: Air Purifying, R or P style NIOSH approved respirator. For Vapors: Air Purifying, R or P style prefilter & organic cartridge, NIOSH approved respirator. Self-contained breathing apparatus.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor: Bright and clear liquid. Mild additive odor
Substance Chemical Family: Lubricants
API Gravity: 29.2

Appearance: Bright and clear liquid.

Color: 3 - - 5.5 [D-1500-00]

Flash Point: 410 °F [Cleveland Open Cup]

Odor: Mild additive odor

Pour Point: -27 °F - - -17 °F

Specific Gravity: 0.8929

Viscosity: 160.9 cSt @ 40 °C



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SECTION 7 HANDLING AND STORAGE

Precautionary Measures:

Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet. Launder contaminated clothing before reuse. Properly dispose of contaminated leather articles such as shoes or belts that cannot be decontaminated. Avoid heat, open flames, including pilot lights, and strong oxidizing agents. Use explosion-proof ventilation to prevent vapor accumulation. Ground all handling equipment to prevent sparking.

Storage:

Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

Container Warnings:

Keep containers closed when not in use. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Oil mist, mineral ACGIH TLV TWA: 5 mg/m³ STEL: 10 mg/m³
Oil mist, mineral OSHA PEL TWA: 5 mg/m³

Hydrogen sulfide ACGIH - TLV TWA: 10 ppm STEL: 15 ppm
Hydrogen sulfide OSHA - PEL_IS TWA: 10 ppm STEL: 15 ppm
Hydrogen sulfide Thermal > 120 Degrees F.

EXPOSURE CONTROLS

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits.

PERSONAL PROTECTION

Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation. Information on the selection of eye, skin and respiratory protection for use with this material is provided below.

Eye Protection:

Chemical Goggles, or Safety glasses with side shields

Skin Protection:

Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should



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SECTION 5 FIRE FIGHTING MEASURES

Flash Point [Method]: 410 °F/210 °C [Cleveland Open Cup]

Extinguishing Media:

Material will float and can be re-ignited on surface of water. Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO₂) to extinguish flames. Do not use a direct stream of water.

Fire Fighting Instructions:

Material will not burn unless preheated. Clear fire area of all non-emergency personnel. Only enter confined fire space with full gear, including a positive pressure, NIOSH-approved, self-contained breathing apparatus. Cool surrounding equipment, fire-exposed containers and structures with water. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons water per minute flame impingement exposure) to prevent weakening of container structure.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures:

May burn although not readily ignitable.

Wear appropriate personal protective equipment when cleaning up spills. Refer to Section 8.

Spill Management:

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

Reporting:

CERCLA: Product is covered by EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) petroleum exclusion. Releases to air, land, or water are not reportable under CERCLA (Superfund).

CWA: This product is an oil as defined under Section 311 of EPA's Clean Water Act (CWA). Spills into or leading to surface waters that cause a sheen must be reported to the National Response Center, 1-800-424-8802.



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Skin Contact:

Lubricating oils are generally considered no more than minimally irritating to the skin. Prolonged and repeated contact may result in defatting and drying of the skin that may cause various skin disorders such as dermatitis, folliculitis or oil acne.

Ingestion:

Lubricating oils are generally no more than slightly toxic if swallowed.

Other Health Effects:

The International Agency for Research on Cancer (IARC) has determined there is sufficient evidence for the carcinogenicity in experimental animals of used gasoline motor oils. Handling procedures and safety precautions in the MSDS should be followed to minimize exposure to the used product.

Signs and Symptoms:

Irritation as noted above.

Aggravated Medical Conditions:

Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product.

For additional health information, refer to section 11.

SECTION 4 FIRST AID MEASURES

Inhalation:

Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

Skin:

Remove contaminated clothing and shoes and wipe excess from skin. Flush skin with water, then wash with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned.

Eye:

Flush with water. If irritation occurs, get medical attention.

Ingestion:

Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical attention.

Note to Physician:

In general, emesis induction is unnecessary in high viscosity, low volatility products such as oils and greases.



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(419) 531-4600 ■ (419) 531-6836
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MATERIAL SAFETY DATA SHEET

MSDS Number: 71145E - 3

24 Hour Emergency Assistance: CHEMTEL (877) 276-7283

General Assistance Number: (877) 276-7285

SECTION 1 PRODUCT IDENTIFICATION

MATERIAL IDENTITY: FormulaShell™ SAE 20W - 50

PRODUCT CODES: 50205

COMPANY ADDRESS: Equilon Enterprises LLC, P. O. Box 4453, Houston, TX.
77210-4453

SECTION 2 PRODUCT/INGREDIENTS

CAS#	CONCENTRATION	INGREDIENTS
Mixture	100 %weight	Heavy Duty Motor Oil
64742-54-7	80 - 94.99 %weight	Hydrotreated heavy paraffinic distillate
64742-46-7	3 - 8.99 %weight	Hydrotreated middle distillate
64742-52-5	1 - 2.99 %weight	Hydrotreated heavy naphthenic distillate
Proprietary	< 1 %weight	Proprietary Phenolic Additives

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance & Odor: Bright and clear liquid. Mild additive odor

Health Hazards: No known immediate health hazards.

Physical Hazards: No known physical hazards.

NFPA Rating (Health, Fire, Reactivity): 0, 1, 0

Hazard Rating: Least - 0 Slight - 1 Moderate - 2 High - 3

Extreme - 4

Inhalation:

Inhalation of vapors (generated at high temperatures only) or oil mist may cause mild irritation of the nose, throat, and respiratory tract.

Eye Irritation:

Lubricating oils are generally considered no more than minimally irritating to the eyes.

MATERIAL SAFETY DATA SHEET

SECTION I

HAZARD RATING:

4 = EXTREME
3 = HIGH
2 = MODERATE
1 = SLIGHT
0 = INSIGNIFICANT
* = CHRONIC HEALTH HAZARD - SEE SECTION V

Fire	0	Reactivity
Health	2	Special

BOND CHEMICALS, INC.

EMERGENCY TELEPHONE NO.
8:00 - 5:00 WEEKDAYS AFTER HOURS
330/723-6005 800/424-9300

1154 W. Smith Road, Medina, Oh 44256

CHEMICAL NAME AND SYNONYMS

NA

TRADE NAME AND SYNONYMS
Bond CIS 4-556

CHEMICAL FAMILY

NA

FORMULA

Mixture

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS REG. NO.	%	TLV (Units)
Caustic Soda	1310-72-3	4	2mg/M ³
Non-Hazardous		96	
Contains no Section 302, Extremely Hazardous Substances and is not subject to reporting under 40CFR 372 (SARA Title III- Sec. 313)			

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES

All intentional components of this product are on the Inventory of Chemicals Substances of US EPA under the authority of the Toxic Substances Control Act (TSCA).

SECTION III - PHYSICAL DATA H₂O = 1

BOILING POINT @ 228 °F, 109 °C.	SPECIFIC GRAVITY (H ₂ O = 1)	1.242
VAPOR PRESSURE (mm Hg) @ 60 °F, 16 °C.	PERCENT VOLATILE BY VOLUME (%) EXCLUDING WATER	-0-
VAPOR DENSITY (AIR = 1) @ _____ °F, _____ °C.	EVAPORATION RATE (DIETHYLETHER = 1) Greater > Less <	1
SOLUBILITY IN WATER	pH CONC. 13.8	pH 1% IN DIST. WATER 11.4
APPEARANCE AND ODOR	Clear, viscous liquid with no odor.	

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) _____ °F, _____ °C.	FLAMMABLE LIMITS	Low	High
EXTINGUISHING MEDIA	NA	NA	NA
SPECIAL FIRE FIGHTING PROCEDURES	NA		
UNUSUAL FIRE AND EXPLOSION HAZARDS	NA		

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	2mg/M ³ atomized in air.
EFFECTS OF OVEREXPOSURE	Causes irritation to skin, burns in eyes.
EMERGENCY AND FIRST AID PROCEDURES	
EYES	Flush with water 15 min. get prompt medical attention.
SKIN	Flush with water 15 minutes, apply vinegar or boric acid.
INHALATION	Remove to fresh air.
INGESTION	Drink water or milk. See physician.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE	
INCOMPATIBILITY (Materials To Avoid)	X	
HAZARDOUS DECOMPOSITION PRODUCTS	Strong acids.	
HAZARDOUS POLYMERIZATION	Phosphines upon pyrolysis.	
	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR	X

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Do not walk in slippery area. Dike and absorb on clay, rags, sawdust, etc.
WASTE DISPOSAL METHOD	Drum and dispose in landfill.
	Flush to sanitary sewer with large volume of water.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type)	None
VENTILATION	General
PROTECTIVE GLOVES	Rubber
OTHER PROTECTIVE EQUIPMENT	Apron
EYE PROTECTION	Chemical goggles

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Keep from freezing. Keep container closed. Spills are slippery.
SHIPPING NAME	Liquid Water Treatment
HAZARD CLASS	Non-hazardous

SECTION X - DATE AND SOURCE INFORMATION

DATE	01/05
------	-------



ZEP Manufacturing Company
 Acuity Specialty Products Group, Inc.
 P.O. Box 2015
 Atlanta, GA 30301
 1-877-I-BUY-ZEP (428-9937)
 www.zep.com

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name ZEP METER MIST GREEN APPLE
Product Use Aerosol Odor Counteractant
Product Code 3318
Date of issue 04/25/05 **Supersedes** 02/12/99

Emergency Telephone Numbers For MSDS Information:
 Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

Printing date: 10/19/06

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Eye contact. Inhalation.
Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may dry skin and cause irritation.
Eyes Direct contact may cause irritation and redness.
Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.
Ingestion Unlikely in this form.

HMIS	
Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.
Skin Contact Wash with soap and water. If irritation persists, get medical attention.
Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.
Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

**Section 5. Fire Fighting Measures**

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.

Flammability Not applicable.

Fire Hazard CONTENTS UNDER PRESSURE. Container explosion may occur under fire conditions or when heated.

Fire-Fighting Procedures Use DRY chemicals, CO₂, water spray or foam. Cool closed containers exposed to fire with water.

Section 6. Accidental Release Measures


Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes. Wash thoroughly after handling.

Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid. (Aerosol.)	Color	Colorless.
pH	Not applicable	Odor	Apple-like.
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not determined.
Specific Gravity	0.75 (Water = 1)	Vapor Density	Not determined.
Solubility	Partially soluble in water.	Evaporation Rate	Not determined.
		VOC (Consumer)	29.8% 1.9 (lb/gal) 223(g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility None identified.

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.

Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Code: - (Not applicable.)

Information Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity

DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting: Diethylene Glycol Monoethyl Ether (Glycol Ethers)

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether

All Components of this product are listed or exempt from listing on TSCA inventory.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



ZEP Manufacturing Company
 Acuity Specialty Products Group, Inc.
 P.O. Box 2015
 Atlanta, GA 30301
 1-877-I-BUY-ZEP (428-9937)

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name Meter Mist Mango
Product Use Odor Counteractant
Product Code 3327
Date of issue 08/18/04 **Supersedes**

Emergency Telephone Numbers For MSDS Information:
 Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP

For Medical Emergency:
 INFOTRAC
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency:
 CHEMTREC
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

Printing date: 10/19/06

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may dry skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

HMIS	
Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.
Chronic Effects No known chronic effects from exposure.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.

Flammability Not applicable.

Fire Hazard CONTENTS UNDER PRESSURE. Container explosion may occur under fire conditions or when heated.

Fire-Fighting Procedures Use DRY chemicals, CO₂, water spray or foam. Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes. Wash thoroughly after handling.

Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid. (Aerosol.)	Color	Colorless.
pH	Not applicable	Odor	Pleasant. Mango
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not determined.
Specific Gravity	0.82 (Water = 1)	Vapor Density	Not determined.
Solubility	Partially soluble in water.	Evaporation Rate	Not determined.
		VOC (Consumer)	30% 2.0 (lb/gal) 243 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility None identified.

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.

Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Waste Stream Code: - (Not applicable.)
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity

DOT Classification ORM-D **UN number** Not applicable

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
Diethylene Glycol Monoethyl Ether (Glycol Ethers)

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



ZEP Manufacturing Company
 Acuity Specialty Products Group, Inc.
 P.O. Box 2015
 Atlanta, GA 30301
 1-877-1-BUY-ZEP (428-9937)
 www.zep.com

Material Safety Data Sheet and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name ZEP METER MIST MANDARIN
Product Use ORANGE
 Aerosol Odor Counteractant
Product Code 3330
Date of issue 04/25/05 **Supersedes** 02/01/99

Emergency For MSDS Information:
Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-1-BUY-ZEP (428-9937)

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Printing date: 10/19/06

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may dry skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure.

See Toxicological Information (section 11)

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

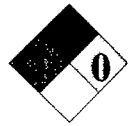
Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.

Flammability Not applicable.

Fire Hazard CONTENTS UNDER PRESSURE. Container explosion may occur under fire conditions or when heated.

Fire-Fighting Procedures Use DRY chemicals, CO₂, water spray or foam. Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes. Wash thoroughly after handling.

Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection**Personal Protection****Protective Clothing (Pictograms)**

Eyes Recommended: Safety glasses.

Body No special protective clothing is required.

Respiratory Avoid direct inhalation of spray.

**Section 9. Physical and Chemical Properties**

Physical State	Liquid. (Aerosol.)	Color	Colorless.
pH	Not applicable	Odor	Orange.
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not determined.
Specific Gravity	0.82 (Water = 1)	Vapor Density	Not determined.
Solubility	Partially soluble in water.	Evaporation Rate	Not determined.
		VOC (Consumer)	29.8% 1.9 (lb/gal) 222.7 (g/l)

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility None identified.

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.

Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Code: - (Not applicable.)

Information Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity

DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
Diethylene Glycol Monoethyl Ether (Glycol Ethers)

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether

All Components of this product are listed or exempt from listing on TSCA inventory.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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 www.zep.com

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST ISLAND APRICOT
Product Use Aerosol Odor Counteractant
Product Code 3336
Date of issue 06/15/06 **Supersedes**

Emergency Telephone Numbers For MSDS Information:
 Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

Printing date: 10/19/06

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55 - 65	ACGIH TLV / OSHA PEL (United States). TWA: 750 ppm 8 hour(s). ACGIH / OSHA (United States). STEL: 1000 ppm 15 minute(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	ACGIH TLV / OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	Not established
PROPANE; liquefied petroleum gas	68476-85-7	20 - 30	ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may dry skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

HMIS	
Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects Repeated or prolonged exposure to the substance can produce damage to liver and kidneys.
 See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If excessive quantities inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.

Flammability Not applicable.

Fire Hazard CONTENTS UNDER PRESSURE. Container explosion may occur under fire conditions or when heated.

Fire-Fighting Procedures Use DRY chemicals, CO₂, water spray or foam. Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes. Wash thoroughly after handling.

Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection

	Personal Protection	Protective Clothing (Pictograms)
Eyes	Recommended: Safety glasses.	
Body	No special protective clothing is required.	
Respiratory	Avoid direct inhalation of spray.	

Section 9. Physical and Chemical Properties

Physical State	Liquid. (Aerosol.)	Color	Colorless.
pH	Not applicable	Odor	Fruity.
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not determined.
Specific Gravity	0.816 (Water = 1)	Vapor Density	Not determined.
Solubility	Partially soluble in water.	Evaporation Rate	Not determined.
		VOC (Consumer)	29.8% 2.0 (lb/gal) 242 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility None identified.

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.

Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Code: - (Not applicable.)
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity

DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
Diethylene Glycol Monoethyl Ether (Glycol Ethers)

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether

All Components of this product are listed or exempt from listing on TSCA inventory.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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 Acuity Specialty Products Group, Inc.
 P.O. Box 2015
 Atlanta, GA 30301
 1-877-I-BUY-ZEP (428-9937)

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST RASPBERRY
Product Use Odor Counteractant
Product Code 3346
Date of issue 05/20/04 **Supersedes**

Emergency Telephone Numbers For MSDS Information:
 Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP

For Medical Emergency:
 INFOTRAC
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency:
 CHEMTREC
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

Printing date: 10/19/06

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
PROPANE; liquefied petroleum gas	68476-85-7	20-30	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Eye contact. Inhalation.
Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may dry skin and cause irritation.
Eyes Direct contact may cause irritation and redness.
Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.
Ingestion Unlikely in this form.

HMIS	
Health	1
Env. Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.
Chronic Effects No known chronic effects from exposure.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.
Skin Contact Wash with soap and water. If irritation persists, get medical attention.
Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.
Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

**Section 5. Fire Fighting Measures**

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.
Flammability Not applicable.
Fire Hazard Container explosion may occur under fire conditions or when heated.
Fire-Fighting Procedures Cool closed containers exposed to fire with water.

Section 6. Accidental Release Measures

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes.
Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight.

Section 8. Exposure Controls, Personal Protection

Personal Protection **Protective Clothing (Pictograms)**
Eyes Recommended: Safety glasses. 
Body No special protective clothing is required.
Respiratory Avoid direct inhalation of spray.

Section 9. Physical and Chemical Properties

Physical State Liquid. **Color** Colorless.
pH Not available. **Odor** Pleasant. Raspberry.
Boiling Point 55.6°C (132°F) **Vapor Pressure** Not available.
Specific Gravity 0.825 (Water = 1) **Vapor Density** Not available.
Solubility Partially soluble in water. **Evaporation Rate** Not available.
VOC (Consumer) 30% 204 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility None identified.
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Code: - (Not applicable.)
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity
DOT Classification ORM-D **UN number** Not applicable

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
Diethylene Glycol Monoethyl Ether (Glycol Ethers)
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether

Section 16. Other Information

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
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 www.zep.com

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name METER MIST PEAR
Product Use Odor Counteractant
Product Code 3356
Date of issue 02/03/05 **Supersedes**

Emergency For MSDS Information:
Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

A R TRANSPORT INC
 2513 HWY 20
 DECATUR AL 35601

For Medical Emergency
 INFOTRAC:
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For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Printing date: 10/19/06

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ACETONE; dimethyl ketone	67-64-1	55-65	OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH (United States). STEL: 750 ppm 15 minute(s). Not established
2-(2-ETHOXYETHOXY)-ETHANOL; diethylene glycol monoethyl ether, ethoxydiglycol	111-90-0	<10	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s). ACGIH TLV (United States). : 800 ppm 8 hour(s). OSHA PEL (United States). TWA: 1000 ppm 8 hour(s).
ETHANOL; ethyl alcohol; grain alcohol	64-17-5	<10	
PROPANE; liquefied petroleum gas	68476-85-7	20-30	

Section 3. Hazards Identification

Acute Effects

Routes of Entry Eye contact. Inhalation.

Skin Non-irritating under recommended conditions of use. Prolonged or repeated contact may dry skin and cause irritation.

Eyes Direct contact may cause irritation and redness.

Inhalation Non-irritating under recommended conditions of use. Overexposure by inhalation may cause respiratory irritation.

Ingestion Unlikely in this form.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

HMIS

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	N/A

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects No known chronic effects from exposure.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

Skin Contact Wash with soap and water. If irritation persists, get medical attention.

Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Section 5. Fire Fighting Measures

Flash Point Non-flammable (CSMA) **Flammable Limits** Not applicable.

Flammability Not applicable.

Fire Hazard CONTENTS UNDER PRESSURE. Container explosion may occur under fire conditions or when heated.

Fire-Fighting Procedures Use DRY chemicals, CO₂, water spray or foam. Cool closed containers exposed to fire with water.

**Section 6. Accidental Release Measures**

Spill Clean up Spills are unlikely due to packaging.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes. Wash thoroughly after handling.

Storage Do not puncture, incinerate, or store the container at temperatures above 49°C (120°F) or in direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection**Personal Protection****Protective Clothing (Pictograms)**

Eyes Recommended: Safety glasses.

Body No special protective clothing is required.

Respiratory Avoid direct inhalation of spray.

**Section 9. Physical and Chemical Properties**

Physical State	Liquid. (Aerosol.)	Color	Colorless.
pH	Not applicable	Odor	Pleasant. Pear.
Boiling Point	55.6°C (132°F)	Vapor Pressure	Not determined.
Specific Gravity	0.804 (Water = 1)	Vapor Density	Not determined.
Solubility	Partially soluble in water.	Evaporation Rate	Not determined.
		VOC (Consumer)	29.8% 2.0 (lb/gal) 239 (g/l).

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility None identified.

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products Carbon oxides (CO, CO₂) and unspecified organic materials.

Section 11. Toxicological Information

Toxicity to Animals Not applicable.

Section 12. Ecological Information

Ecotoxicity Not available.

Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Code: - (Not applicable.)
Classification: - (Non-hazardous waste)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name Consumer Commodity

DOT Classification ORM-D **UN number** Not applicable

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
Diethylene Glycol Monoethyl Ether (Glycol Ethers)

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monoethyl Ether

All Components of this product are listed or exempt from listing on TSCA inventory.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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www.kemlitefrp.com

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

Trade Name and Synonyms	SunPatch® Fiberglass Patch
Chemical Name and Synonyms	Resin Solution
Chemical Family	Styrene
DOT Hazard Classification	Marine Pollutant, UN1866, Class 3, P6 111

HAZARDS IDENTIFICATION

Threshold Limit Value (TLV)	50 ppm
Primary Route of Entry	Range 1.12-1.75
Effects of Overexposure	Skin contact: moderate irritation (rash/dermatitis)

PHYSICAL DATA

Boiling Point	295°F
Vapor Pressure	4.5 @ 68°F
Vapor Density (air = 1)	+1.1
Specific Gravity (water = 1)	1.1
% Volatile (by volume)	41.24
Solubility in Water	Slight
Appearance and Odor	Styrene-aromatic hydrocarbon

FIRST AID MEASURES

Inhalation of Vapors	Excessive breathing of vapors can cause respiratory irritation, nausea and even asphyxiation.
Prolonged Skin Contact	Skin contact can cause moderate irritation (rash/dermatitis). Wash skin thoroughly with soap and water.
Eye Contact	Can cause severe irritation or burns. Flush eyes with large amounts of water. Get medical attention.

FIRE AND EXPLOSION DATA

Flash Point	Persky Martens 94°F, OSHA Class 1C, LEL 1.1, UUEL 6.1
Extinguishing Media	Alcohol foam, CO ₂ , dry chemical
Fire Fighting Procedures	Closed containers may be cooled by water to prevent pressure buildup. Firefighters should wear self-contained breathing apparatus.
Unusual Fire or Explosion Hazards	Closed containers may burst explosively when exposed to extreme heat.

REACTIVITY DATA

Stability and Incompatibility	Stable under normal use conditions. Avoid contact with oxidizing agents. Avoid overheating. Avoid direct exposure of resin to sunlight or ultraviolet light sources (except when applying as a repair).
Hazardous Decomposition Products	Smoke, CO ₂ , CO.

ENVIRONMENTAL INFORMATION

Handling and Storing Precautions

Store away from sources of heat and ignition. Avoid exposure to open flame, heat, oxidizing agents, direct sunlight, catalysts, and peroxides. Keep containers closed when not in use.

Miscellaneous

Do not take internally. For industrial use only. Keep out of reach of children.

Spill or Leak Procedures

Remove all sources of ignition and ventilate the area. Clean up spill with inert absorbent and non-sparking utensils.

Waste Disposal

Follow EPA Hazardous Waste Regulations.

PERSONAL PROTECTION INFORMATION

Respiratory Protection

Use adequate ventilation to keep vapors below TLV. If TLV is exceeded, use chemical respirator with an absorbent organic vapor cartridge, or an air supplied respirator with self-contained breathing apparatus.

Eye Protection

Use goggles for protection against spray or splashes.

Skin Protection

Wear protective neoprene or polyvinyl alcohol gloves for repeated contact.

The above is accurate to the best of our knowledge. However, since data, safety standards and government regulations are subject to change, and the conditions for use or misuse are beyond our control, KEMLITE COMPANY MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, ABOUT THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN, AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. User should be satisfied that he/she has all current data relevant to his/her particular use.

Approved By



Date

APPENDIX 1 - CHANGE PROPOSAL/RISK ASSESSMENT AND APPROVAL

MOC Number: 2006-007

Aromatics and Acetyls-Naperville Complex Management of Change (MOC) Form

PROPOSAL

Change Proposed By:

Proposal Date:

DESCRIPTION OF THE CHANGE:
Transload PTA from rail cars to hopper trucks to a silo and then to 1 ton bags for shipment to Oxid in a panel van.

REASONS FOR THE CHANGE:
Transfer off spec material into a package in which Oxid can accept. A&R does not have a permanent facility to transfer the material directly to a silo. Therefore the interim step to the hopper truck is necessary. Oxid is only configured to accept bulk bags of material.

Target Date of Change:

- Types of Change:
- Process Chemical
 - Process Technology
 - Equipment Change
 - Organizational Change
 - Computer System
 - Instrumentation Change
 - X Procedural Change
 - Law or Regulation
 - X Logistics
 - Other

Duration of Change: Permanent

X Temporary Proposed Removal Date:

Actual Removal Date:

- Requirements for Change:
- X Process Safety Review
 - Team Review
 - X Communication Plan
 - Changes in job descriptions or responsibilities assigned
 - Other
 - HAZOP
 - Task Hazard Assessment
 - X Changes in policies/procedures
 - Changes in job descriptions or responsibilities assigned
 - X Training
-

TEAM REVIEWING THE CHANGE:
 Jim Evans, BP
 John Diendorf, BP
 Greg Crum, BP
 A&R reps—Bob Dotson, Mark Yeck, Paul Swenden, Jim Bedeker

APPENDIX 1 - CHANGE PROPOSAL/RISK ASSESSMENT AND APPROVAL

MOC Number: 2006-007

Harold Hirschmann, BP

CHANGE RISK ASSESSMENT (additional risk assessment blocks can be added as necessary)

Issue:	Static electricity	
Risk/Benefit:	PTA is a static accumulator and potential exists for a dust explosion during transfer operations which generate airborne particles.	
Proposed Risk Mitigation:	Grounding and bonding of transfer system with continuity testing.. Purge with nitrogen to maintain oxygen concentration at 8%. Worker training.	
Target Date: <i>Prior to start-up</i>		
Complete Date:		Responsible Person: Mark Yeck, A&R

Issue:	Use of nitrogen. Potential exposure to workers at dome of rail cars, hopper trucks, bag house, and silo discharge valve.	
Risk/Benefit:	Risks: 1) Oxygen deficient atmosphere in the rail car and hopper truck trailer; 2) Potential for oxygen deficient atmosphere in the immediate area of the transload operation and silo discharge/Benefit: Reduce risk of dust explosion	
Proposed Risk Mitigation:	Worker training on nitrogen. Prohibit confined space entry into rail car or truck hopper. Warning signs. Atmospheric monitoring in immediate area of silo discharge.. Barricade or tape off area to warn workers of nitrogen hazard. Control entry to the transload operation.	
Target Date: <i>Prior to start-up</i>		
Complete Date:		Responsible Person: Mark Yeck, A&R

Issue:	Working at heights greater than 6 feet. Fall from top of rail car, hopper truck, transload equipment, etc.	
Risk/Benefit:	Risk: Fall from heights/Benefit: Risk reduction	
Proposed Risk Mitigation:	Provide engineered fall protection system. Use safety harness, lifeline, and appropriate anchor point(s) when engineered fall protection system can not be utilized.	
Target Date: <i>Prior to start-up</i>		
Complete Date:		Responsible Person: Mark Yeck, A&R

Issue:	Traffic control at transload site. There is a common traffic pathway between the rail spot and the warehouse where the silo is located.	
Risk/Benefit:	Risk: Vehicle/pedestrian accident./Benefit: Risk reduction	
Proposed Risk Mitigation:	Traffic control plan.	
Target Date: <i>1 week prior to start-up</i>		

APPENDIX 1 - CHANGE PROPOSAL/RISK ASSESSMENT AND APPROVAL

MOC Number: 2006-007

Complete Date:	Responsible Person: Mark Yeck, A&R
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Issue:	Spills of PTA	
Risk/Benefit:	Spill of non-hazardous material.	
Proposed Risk Mitigation:	Monitoring and containment. Periodic vacuuming of material from the transloading facility.	
Target Date: Prior to start-up		
Complete Date:	Responsible Person: Mark Yeck, A&R	

Issue:	Off spec product	
Risk/Benefit:	Exposure to workers	
Proposed Risk Mitigation:	The off spec product does not present any additional hazard than PTA. The nature of the off spec was related to color. Same as dust control below.. Worker training. Bp to provide MSDS	
Target Date: Prior to start-up		
Complete Date:	Responsible Person: Mark Yeck, A&R	

Issue:	Dust control. Dust exposure to worker filling bags.	
Risk/Benefit:	Risk: dust exposure to workers	
Proposed Risk Mitigation:	Use of bag house off of silo and/or cyclone on trailer. Seal between discharge line/valve and bag. Worker training. Provide workers MSDS.	
Target Date: Prior to start-up		
Complete Date:	Responsible Person: Mark Yeck, A&R	

Issue:	Pressure/Vacuum	
Risk/Benefit:	Overpressurization/Implosion of rail car or truck hopper/	
Proposed Risk Mitigation:	Both the rail car and the hopper truck are open to atmosphere.	
Target Date: No action required in the present configuration.		
Complete Date:	Responsible Person: Mark Yeck, A&R	

APPENDIX 1 - CHANGE PROPOSAL/RISK ASSESSMENT AND APPROVAL

MOC Number: 2006-00?

Issue:	Track isolation	
Risk/Benefit:	Risk of train be diverted to track were loading/unloading operation is in progress	
Proposed Risk Mitigation:	Use of blue flags, derailleurs and/or locakable switches	
Target Date: <i>Prior to start-up</i>		
Complete Date:	Responsible Person: Mark Yeck, A&R	

Issue:	Hopper car isolation	
Risk/Benefit:	Hopper car being inadvertently moved during transloading.	
Proposed Risk Mitigation:	Brakes set and wheels chocked to keep car from moving when unloading	
Target Date: <i>Prior to start-up</i>		
Complete Date:	Responsible Person: Mark Yeck, A&R	

Issue:	Communications	
Risk/Benefit:	Ineffective communications between facility operator, rail road, truck carriers and BP.	
Proposed Risk Mitigation:	Communication plan	
Target Date: <i>Prior to start-up</i>		
Complete Date:	Responsible Person: Jim Evans, BP	

Issue:	Overfill silo	
Risk/Benefit:	Risk: Uncontrolled release of PTA	
Proposed Risk Mitigation:	Visual check of level by operator.	
Target Date:		
Complete Date:	Responsible Person: Mark Yeck, A&R	

APPENDIX 1 - CHANGE PROPOSAL/RISK ASSESSMENT AND APPROVAL

MOC Number: 2006-007

Issue:	Pull vacuum on silo	
Risk/Benefit:	Risk: Vacuum on silo results in structural damage	
Proposed Risk Mitigation:	Vacuum break on silo	
Target Date:		
Complete Date:		Responsible Person:

APPROVAL

Declaration by Approving Authority

Either: I accept the findings of the review and:

- The change is approved subject to all the recommendations of the review team being implemented, or
- The change is not approved

or: I acknowledge the findings of the review team but choose to override the findings wholly or in part for the following reasons:

Approver:

Jeff Foshee

Approver Signature:

Date:

LT Member Signature (if required)

Date:

Change completed

Date:

HAZARD MATERIAL Safety Data Sheet

1. Chemical Product and Company Identification

Product Name: Oxygen, compressed (MSDS No. P-4638-E)	Trade Name: Oxygen, Medipure™ Oxygen
Chemical Name: Oxygen	Synonyms: Dioxygen
Formula: O ₂	Chemical Family: Permanent gas
Telephone: Emergency: 1-800-645-4333 CHEMTREC: 1-800-424-9393 Routine: 1-800-PRAXAIR	Company Name: Praxair, Inc. 39 Old Ridgebury Road Danbury, CT 06810-5113

* Call emergency numbers 24 hours a day only for spills, leaks, fire, exposure, or accidents involving this product. For routine information, contact your supplier, Praxair sales representative, or call 1-800-PRAXAIR (1-800-772-9247).

2. Composition/Information on Ingredients

This section covers materials of manufacture only. See sections 3, 8, 10, 11, 15, and 16 for information on by-products generated during use, especially use in welding and cutting. See section 16 for important information about mixtures.

INGREDIENT	CAS NUMBER	CONCENTRATION	OSHA PEL	ACGIH TLV-TWA (2002)
Oxygen	7782-44-7	>99%*	None currently established	None currently established

*The symbol > means "greater than."

3. Hazards Identification

EMERGENCY OVERVIEW

WARNING! High-pressure, oxidizing gas.
 Vigorously accelerates combustion.
 Self-contained breathing apparatus may be required by rescue workers.
 Odor: None

THRESHOLD LIMIT VALUE: None currently established. ACGIH, 2002, recommends a TLV-TWA of 5 mg/m³ for welding fumes not otherwise classified (NOC) that may be generated during welding with this product. See section 16 for more information on welding hazards. TLV-TWAs should be used as a guide in the control of health hazards and not as fine lines between safe and dangerous concentrations.

Revised

INHALATION—Breathing 80% or more oxygen at atmospheric pressure for more than a few hours may cause nasal stuffiness, cough, sore throat, chest pain, and breathing difficulty. Breathing oxygen at higher pressure increases the likelihood of adverse effects within a shorter time period. Breathing pure oxygen under pressure may cause lung damage and also Central Nervous System (CNS) effects resulting in dizziness, poor coordination, tingling sensation, visual and hearing disturbances, muscular twitching, unconsciousness, and convulsions. Breathing oxygen under pressure may cause prolongation of adaptation to darkness and reduced peripheral vision.

SKIN CONTACT—No harm expected.

SWALLOWING—This product is a gas at normal temperature and pressure.

EYE CONTACT—No harm expected.

EFFECTS OF REPEATED (CHRONIC) OVEREXPOSURE: No harm expected.

OTHER EFFECTS OF OVEREXPOSURE: See section 11, Toxicological Information.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: See section 11, Toxicological Information.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION: None known.

CARCINOGENICITY: Oxygen is not listed by NTP, OSHA, or IARC.

4. First Aid Measures

INHALATION: Immediately remove to fresh air. If not breathing, give artificial respiration. Keep victim warm and at rest. Call a physician. Advise the physician that the victim has been exposed to a high concentration of oxygen.

SKIN CONTACT: Wash with soap and water; seek medical attention if discomfort persists.

SWALLOWING: This product is a gas at normal temperature and pressure.

EYE CONTACT: Flush eyes thoroughly with water. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Get medical attention if discomfort persists.

NOTES TO PHYSICIAN: Supportive treatment should include immediate sedation, anti-convulsive therapy if needed, and rest. See section 11, Toxicological Information.

5. Fire Fighting Measures

FLASH POINT (test method):	Not applicable
AUTOIGNITION TEMPERATURE:	Not applicable
FLAMMABLE LIMITS IN AIR, % by volume:	LOWER: Not applicable UPPER: Not applicable

EXTINGUISHING MEDIA: Vigorously accelerates combustion. Use media appropriate for surrounding fire. Water (e.g., safety shower) is the preferred extinguishing method for clothing fires.

SPECIAL FIRE FIGHTING PROCEDURES: WARNING! High-pressure, oxidizing gas. Evacuate all personnel from danger area. Immediately deluge cylinders with water from maximum distance until cool; then move them away from fire area if without risk. Self-contained breathing apparatus may be required by rescue workers. On-site fire brigades must comply with OSHA 29 CFR 1910.156.

combustion. Contact with flammable materials may cause fire or explosion. Heat of fire can build pressure in cylinder and cause it to rupture. Oxygen cylinders are equipped with a pressure relief device. (Exceptions may exist where authorized by DOT.) No part of cylinder should be subjected to a temperature higher than 125°F (52°C). Smoking, flames, and electric sparks in the presence of enriched oxygen atmospheres are potential explosion hazards.

HAZARDOUS COMBUSTION PRODUCTS: None known.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: **WARNING! High-pressure, oxidizing, gas.** Shut off flow if without risk. Ventilate area or move cylinder to a well-ventilated area. Remove all flammable materials from vicinity. Oxygen must never be permitted to strike an oily surface, greasy clothes, or other combustible material.

WASTE DISPOSAL METHOD: Prevent waste from contaminating the surrounding environment. Keep personnel away. Discard any product, residue, disposable container, or liner in an environmentally acceptable manner, in full compliance with federal, state, and local regulations. If necessary, call your local supplier for assistance.

7. Handling and Storage

PRECAUTIONS TO BE TAKEN IN STORAGE: Store and use with adequate ventilation, away from oil, grease, and other hydrocarbons. Separate oxygen cylinders from flammables by at least 20 ft (6.1 m) or use a barricade of noncombustible material. This barricade should be at least 5 ft (1.53 m) high and have a fire resistance rating of at least ½ hour. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 125°F (52°C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.

PRECAUTIONS TO BE TAKEN IN HANDLING: Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert an object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly. If valve is hard to open, discontinue use and contact your supplier. Never apply flame or localized heat directly to any part of the cylinder. High temperatures may damage the cylinder and could cause the pressure relief device to fail prematurely, venting the cylinder contents. For other precautions in using this mixture, see section 16.

For additional information on storage and handling, refer to Compressed Gas Association (CGA) pamphlet P-1, *Safe Handling of Compressed Gases in Containers*, available from the CGA. Refer to section 16 for the address and phone number along with a list of other available publications.

8. Exposure Control/Personal Protection

VENTILATION/ENGINEERING CONTROLS

- LOCAL EXHAUST**—Use a local exhaust system, if necessary, to prevent increased oxygen concentration and, in welding, to keep hazardous fumes and gases below applicable TLVs in the worker's breathing zone.
- MECHANICAL (general)**—General exhaust ventilation may be acceptable if it can maintain a supply of air that is not too rich in oxygen and, during welding, can keep hazardous fumes and gases below applicable TLVs in the worker's breathing zone.
- SPECIAL**—None
- OTHER**—None

RESPIRATORY PROTECTION: None required under normal use. However, air-supplied respirators are required while working in confined spaces with this product. For welding, use air-purifying or air-supplied respirators, as appropriate, where local or general exhaust ventilation is inadequate. Adequate ventilation must keep worker exposure below applicable TLVs for fumes, gases, and other by-products of welding with oxygen. See sections 3, 10, and 16 for details. The respiratory protection used must conform with OSHA rules as specified in 29 CFR 1910.134.

SKIN PROTECTION: Wear work gloves when handling cylinders; welding gloves for welding. Gloves must be free of oil and grease.

EYE PROTECTION: Wear safety glasses when handling cylinders. For welding, wear goggles with filter lens selected as per ANSI Z49.1. Provide protective screens and goggles, if necessary, to protect others. Select as per OSHA 29 CFR 1910.33.

OTHER PROTECTIVE EQUIPMENT: Metatarsal shoes for cylinder handling. Select in accordance with OSHA 29 CFR 1910.132 and 1910.133. As needed for welding, wear hand, head, and body protection to help prevent injury from radiation and sparks. (See ANSI Z49.1.) At a minimum, this includes welder's gloves and protective goggles, and may include arm protectors, aprons, hats, shoulder protection, as well as substantial clothing. Regardless of protective equipment, never touch live electrical parts.

9. Physical and Chemical Properties

MOLECULAR WEIGHT:	31.9988
SPECIFIC GRAVITY (Air = 1) at 70°F (21.1°C) and 1 atm:	1.105
SOLUBILITY IN WATER, vol/vol at 32°F (0°C):	0.0489
PERCENT VOLATILES BY VOLUME:	100
BOILING POINT at 1 atm:	-297.4°F (-183°C)
FREEZING POINT at 1 atm:	-361.1°F (-218.4°C)

APPEARANCE, ODOR, AND STATE: Colorless, odorless, tasteless gas at normal temperature and pressure.

10. Stability and Reactivity

STABILITY:

Unstable

Stable

INCOMPATIBILITY (materials to avoid): Combustible materials, asphalt, flammable materials, especially oils and greases. Oxygen reacts with many materials.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

HAZARDOUS POLYMERIZATION:

May Occur

Will Not Occur

CONDITIONS TO AVOID: None known.

11. Toxicological Information

The welding process may generate hazardous fumes and gases. (See sections 3, 10, 15, and 16.)

At atmospheric concentration and pressure, oxygen poses no toxicity hazard. At high concentrations, newborn premature infants may suffer delayed retinal damage (retrolental fibroplasia) that can progress to retinal detachment and blindness. Retinal damage may also occur in adults exposed to 100% oxygen for extended periods (24 to 48 hours) or at pressures exceeding atmospheric pressure, particularly in individuals whose retinal circulation has been previously compromised. All individuals exposed for long periods to oxygen at high pressure and all who exhibit overt oxygen toxicity should have ophthalmologic examinations.

At two or more atmospheres, CNS toxicity occurs. Symptoms include nausea, vomiting, dizziness or vertigo, muscle twitching, vision changes, and loss of consciousness and generalized seizures. At three atmospheres, CNS toxicity occurs in less than two hours; at six atmospheres, in only a few minutes.

Patients with chronic obstructive pulmonary disease retain carbon dioxide abnormally. If oxygen is administered, raising their blood-oxygen concentration, their breathing becomes depressed and retained carbon dioxide rises to a dangerous level.

Animal studies suggest that the administration of certain drugs, including phenothiazine drugs and chloroquine, increases the susceptibility to toxicity from oxygen at high concentrations or pressures. Animal studies also indicate that vitamin E deficiency may increase susceptibility to oxygen toxicity.

Airway obstruction during high oxygen tension may cause alveolar collapse following absorption of the oxygen. Similarly, occlusion of the eustachian tubes may cause retraction of the eardrum and obstruction of the paranasal sinuses may produce vacuum-type headache.

12. Ecological Information

No adverse ecological effects expected. Oxygen does not contain any Class I or Class II ozone-depleting chemicals. Oxygen is not listed as a marine pollutant by DOT.

13. Disposal Considerations

WASTE DISPOSAL METHOD: Do not attempt to dispose of residual or unused quantities. Return cylinder to supplier. For emergency disposal, secure cylinder in a well-ventilated area or outdoors; then slowly discharge gas to the atmosphere.

14. Transport Information

DOT/IMO SHIPPING NAME: Oxygen, compressed

HAZARD CLASS: 2.2 | **IDENTIFICATION NUMBER:** UN 1072 | **PRODUCT RQ:** None

SHIPPING LABEL(s): OXYGEN: An oxygen label may be used for domestic shipment in the United States and Canada in place of the NONFLAMMABLE GAS and OXIDIZER labels (49 CFR Part 172).

PLACARD (when required): NONFLAMMABLE GAS or OXYGEN

SPECIAL SHIPPING INFORMATION: Cylinders should be transported in a secure position, in a well-ventilated vehicle. Cylinders transported in an enclosed, nonventilated compartment of a vehicle can present serious safety hazards.

Shipment of compressed gas cylinders that have been filled without the owner's consent is a violation of federal law [49 CFR 173.30(b)].

15. Regulatory Information

The following selected regulatory requirements may apply to this product. Not all such requirements are identified. Users of this product are solely responsible for compliance with all applicable federal, state, and local regulations.

U.S. FEDERAL REGULATIONS:

EPA (ENVIRONMENTAL PROTECTION AGENCY)

CERCLA: COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (40 CFR Parts 117 and 302):

Reportable Quantity (RQ): None

SARA: SUPERFUND AMENDMENT AND REAUTHORIZATION ACT:

SECTIONS 302/304: Require emergency planning based on Threshold Planning Quantity (TPQ) and release reporting based on Reportable Quantities (RQ) of Extremely Hazardous Substances (EHS) (40 CFR Part 355):

Threshold Planning Quantity (TPQ): None

EHS RQ (40 CFR 355): None

SECTIONS 311/312: Require submission of MSDSs and reporting of chemical inventories with identification of EPA hazard categories. The hazard categories for this product are as follows:

IMMEDIATE: No

PRESSURE: Yes

DELAYED: No

REACTIVITY: No

FIRE: Yes

SECTION 313: Requires submission of annual reports of release of toxic chemicals that appear in 40 CFR Part 372.

Oxygen does not require reporting under Section 313.

40 CFR 68: RISK MANAGEMENT PROGRAM FOR CHEMICAL ACCIDENTAL RELEASE PREVENTION: Requires development and implementation of risk management programs at facilities that manufacture, use, store, or otherwise handle regulated substances in quantities that exceed specified thresholds.

Oxygen is not listed as a regulated substance.

TSCA: TOXIC SUBSTANCES CONTROL ACT: Oxygen is listed on the TSCA inventory.

29 CFR 1910.119: PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS. Requires facilities to develop a process safety management program based on Threshold Quantities (TQ) of highly hazardous chemicals.

Oxygen is not listed in Appendix A as a highly hazardous chemical.

STATE REGULATIONS:

CALIFORNIA: Oxygen is not listed by California under the SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 (Proposition 65).

PENNSYLVANIA: Oxygen is subject to the PENNSYLVANIA WORKER AND COMMUNITY RIGHT-TO-KNOW ACT (35 P.S. Sections 7301-7320).

16. Other information

Be sure to read and understand all labels and instructions supplied with all containers of this product.

WARNING: Medical grades of oxygen are subject to strict federal regulations and are for use only under the control of a licensed physician or clinician familiar with the product and its hazards.

ADDITIONAL SAFETY AND HEALTH HAZARDS: *High pressure, oxidizing gas.* Clean all gauges, valves, regulators, piping, and equipment to be used in oxygen service in accordance with CGA pamphlet G-4.1. Keep cylinders and their valves free of oil and grease. Use piping and equipment adequately designed to withstand pressures to be encountered. Close cylinder valve after each use; keep closed even when empty. *Never use oxygen as a substitute for compressed air.* Never use an oxygen jet for cleaning purposes of any sort, especially for clothing. Oxygen increases the likelihood of an engulfing fire. *Never work on a pressurized system.* If a leak occurs, close the cylinder valve. Blow the system down in a safe and environmentally sound manner in compliance with all federal, state, and local laws; then repair the leak. *Never place a compressed gas cylinder where it may become part of an electrical circuit.*

Personnel who have been exposed to high concentrations of oxygen should stay in a well-ventilated or open area before going into a confined space or near an ignition source.

SPECIAL PRECAUTIONS: *Use in welding and cutting.* Read and understand the manufacturer's instructions and the precautionary label on the product. See American Standard Z49.1, *Safety in Welding and Cutting*, published by the American Welding Society, PO Box 351040, Miami, FL 33135, and OSHA Publication 2206 (29CFR 1910), US Government Printing Office, Washington, DC 20402, for more information.

Arcs and sparks can ignite combustible materials. Prevent fires. Refer to NFPA 51B, *Cutting and Welding Processes. Do not strike an arc on the cylinder.* The defect produced by an arc burn could lead to cylinder rupture.

MIXTURES: When you mix two or more gases or liquefied gases, you can create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an industrial hygienist or other trained person when you evaluate the end product. Remember, gases and liquids have properties that can cause serious injury or death.

NFPA RATINGS:

HEALTH	=0
FLAMMABILITY	=0
INSTABILITY	=0
SPECIAL	=OX (OXidizer)

HMIS RATINGS:

HEALTH	=0
FLAMMABILITY	=0
PHYSICAL HAZARD	=0

STANDARD VALVE CONNECTIONS FOR U.S. AND CANADA:

THREADED:

0-3000 psig	CGA-540
3001-4000 psig	CGA-577
4001-5500 psig	CGA-701
0-3000 psig	CGA-870 (Medical Use)
0-3000 psig	CGA-734

PIN-INDEXED YOKE:

ULTRA-HIGH-INTEGRITY CONNECTION:

Use the proper CGA connections. **DO NOT USE ADAPTERS.**

Ask your supplier about free Praxair safety literature as referred to in this MSDS and on the label for this product. Further information about this product can be found in the following pamphlets published by the Compressed Gas Association, Inc. (CGA), 4221 Wakeley Road, 5th Floor, Chantilly, VA 20151-2923; Telephone (703) 788-2700.

- AV-1 *Safe Handling and Storage of Compressed Gases*
- AV-8 *Characteristics and Safe Handling of Cryogenic Liquid and Gaseous Oxygen*
- G-4 *Oxygen*
- G-4.1 *Cleaning Equipment for Oxygen Service*
- P-1 *Safe Handling of Compressed Gases in Containers*
- P-2 *Characteristics and Safe Handling of Medical Gases*
- P-14 *Accident Prevention in Oxygen-Rich, Oxygen-Deficient Atmospheres*
- SB-2 *Oxygen-Deficient Atmospheres*
- SB-8 *Use of Oxy-Fuel Gas Welding and Cutting Apparatus*
- V-1 *Compressed Gas Cylinder Valve Inlet and Outlet Connections*
- *Handbook of Compressed Gases, Fourth Edition*

Praxair asks users of this product to study this MSDS and become aware of product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this MSDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information.

1. Chemical Product and Company Identification

Product Name: Argon, compressed (MSDS No. P-4563-G)		Trade Name: Argon
Chemical Name: Argon		Synonyms: Shielding gas, argon 40
Formula: Ar		Chemical Family: Rare gas
Telephone:	Emergencies: 1-800-645-4633*	Company Name: Praxair, Inc.
	CHEMTREC: 1-800-424-9300*	39 Old Ridgebury Road
	Routine: 1-800-PRAXAIR	Danbury, CT 06810-5113

* Call emergency numbers 24 hours a day only for spills, leaks, fire, exposures, or accidents involving this product. For routine information, contact your supplier, Praxair sales representative, or call 1-800-PRAXAIR (1-800-772-9247).

2. Composition/Information on Ingredients

This section covers materials of manufacture only. See sections 3, 8, 10, 11, 15, and 16 for information on by-products generated during use, especially use in welding and cutting. See section 16 for important information about mixtures.

INGREDIENT	CAS NUMBER	CONCENTRATION	OSHA PEL	ACGIH TLV-TWA (2002)
Argon	7440-37-1	>99%*	None currently established	Simple asphyxiant

*The symbol > means "greater than."

3. Hazards Identification

EMERGENCY OVERVIEW

**CAUTION! High-pressure gas.
 Can cause rapid suffocation.
 May cause dizziness and drowsiness.
 Self-contained breathing apparatus may be required by rescue workers.
 Odor: None**

THRESHOLD LIMIT VALUE: TLV-TWA, simple asphyxiant (ACGIH 2002). ACGIH recommends a TLV-TWA of 5 mg/m³ for welding fumes not otherwise classified (NOC) that may be generated during welding with this product. See section 16 for more information on welding hazards. TLV-TWAs should be used as a guide in the control of health hazards and not as fine lines between safe and dangerous concentrations.

INHALATION—Asphyxiant. Effects are due to lack of oxygen. Moderate concentrations may cause headache, drowsiness, dizziness, excitation, excess salivation, vomiting, and unconsciousness. Lack of oxygen can kill.

SKIN CONTACT—No harm expected.

SWALLOWING—An unlikely route of exposure. This product is a gas at normal temperature and pressure.

EYE CONTACT—No harm expected.

EFFECTS OF REPEATED (CHRONIC) OVEREXPOSURE: No harm expected.

OTHER EFFECTS OF OVEREXPOSURE: Argon is an asphyxiant. Lack of oxygen can kill.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: The toxicology and the physical and chemical properties of argon suggest that overexposure is unlikely to aggravate existing medical conditions.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION: None known.

CARCINOGENICITY: Argon is not listed by NTP, OSHA, or IARC.

4. First Aid Measures

INHALATION: Immediately remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may give oxygen. Call a physician.

SKIN CONTACT: Flush with water. If discomfort persists, seek medical attention.

SWALLOWING: An unlikely route of exposure. This product is a gas at normal temperature and pressure.

EYE CONTACT: Flush eyes thoroughly with warm water. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. If discomfort persists, seek medical attention.

***NOTES TO PHYSICIAN:** There is no specific antidote. This product is inert. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Refer to section 16.*

5. Fire Fighting Measures

FLASH POINT (test method):	Not applicable	
AUTOIGNITION TEMPERATURE:	Not applicable	
FLAMMABLE LIMITS IN AIR, % by volume:	LOWER: Not applicable	UPPER: Not applicable
EXTINGUISHING MEDIA: Argon cannot catch fire. Use media appropriate for surrounding fire.		

SPECIAL FIRE FIGHTING PROCEDURES: **CAUTION! High-pressure gas.** Evacuate all personnel from danger area. Immediately deluge cylinders with water from maximum distance until cool; then move them away from fire area if without risk. Self-contained breathing apparatus may be required by rescue workers. (See section 16.) On-site fire brigades must comply with OSHA 29 CFR 1910.156.

pressure in cylinder and cause it to rupture. No part of cylinder should be subjected to a temperature higher than 125°F (52°C). Argon cylinders are equipped with a pressure relief device. (Exceptions may exist where authorized by DOT.)

HAZARDOUS COMBUSTION PRODUCTS: None known.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: **CAUTION! High-Pressure Gas.** Argon is an asphyxiant. Lack of oxygen can kill. Evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Shut off leak if without risk. Ventilate area of leak or move cylinder to a well-ventilated area. Test for sufficient oxygen, especially in confined spaces, before allowing reentry.

WASTE DISPOSAL METHOD: Prevent waste from contaminating the surrounding environment. Keep personnel away. Discard any product, residue, disposable container, or liner in an environmentally acceptable manner, in full compliance with federal, state, and local regulations. If necessary, call your local supplier for assistance.

7. Handling and Storage

PRECAUTIONS TO BE TAKEN IN STORAGE: Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 125°F (52°C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.

PRECAUTIONS TO BE TAKEN IN HANDLING: Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert an object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly. If valve is hard to open, discontinue use and contact your supplier. Never apply flame or localized heat directly to any part of the cylinder. High temperatures may damage the cylinder and could cause the pressure relief device to fail prematurely, venting the cylinder contents. For other precautions in using this mixture, see section 16.

For additional information on storage and handling, refer to Compressed Gas Association (CGA) pamphlet P-1, *Safe Handling of Compressed Gases in Containers*, available from the CGA. Refer to section 16 for the address and phone number along with a list of other available publications.

8. Exposure Controls/Personal Protection

VENTILATION/ENGINEERING CONTROLS:

LOCAL EXHAUST—Use a local exhaust system, if necessary, to prevent oxygen deficiency and keep hazardous fumes and gases below applicable TLVs in the worker's breathing zone.

MECHANICAL (general)—General exhaust ventilation may be acceptable if it can maintain an adequate supply of air and keep hazardous fumes and gases below applicable TLVs in the worker's breathing zone.

SPECIAL—None

OTHER—None

local or general exhaust ventilation is inadequate. Adequate ventilation must keep worker exposure below applicable TLVs for fumes, gases, and other by-products of welding with argon. See sections 3, 10, and 16 for details. Air-supplied respirators must be used in confined spaces. Respiratory protection must conform to OSHA rules as specified in 29 CFR 1910.134.

SKIN PROTECTION: Wear work gloves when handling cylinders; welding gloves for welding.

EYE PROTECTION: Wear safety glasses when handling cylinders. Select in accordance with OSHA 29 CFR 1910.133. For welding, see section 16.

OTHER PROTECTIVE EQUIPMENT: Metatarsal shoes for cylinder handling. Select in accordance with OSHA 29 CFR 1910.132 and 1910.133. For welding, see section 16. Regardless of protective equipment, never touch live electrical parts.

9. Physical and Chemical Properties

MOLECULAR WEIGHT:	39.95
SPECIFIC GRAVITY (Air = 1) at 70°F (21.1°C) and 1 atm:	1.38
GAS DENSITY at 70°F (21.1°C) and 1 atm:	0.103 lb/ft ³ (1.650 kg/m ³)
SOLUBILITY IN WATER , vol/vol at 32°F (0°C) and 1 atm:	0.056
PERCENT VOLATILES BY VOLUME:	100
BOILING POINT at 1 atm:	-302.57°F (-185.87°C)
MELTING POINT at 1 atm:	-308.83°F (-189.35°C)
APPEARANCE, ODOR, AND STATE: Colorless, odorless, tasteless gas at normal temperature and pressure.	

10. Stability and Reactivity

STABILITY:	<input type="checkbox"/> Unstable	<input checked="" type="checkbox"/> Stable
INCOMPATIBILITY (materials to avoid): None known. Argon is chemically inert.		
HAZARDOUS DECOMPOSITION PRODUCTS: Ozone and nitrogen oxides may be formed by radiation from arc. (See section 16.) Other decomposition products of normal operation originate from volatilization, reaction, or oxidation of the material being worked.		
HAZARDOUS POLYMERIZATION:	<input type="checkbox"/> May Occur	<input checked="" type="checkbox"/> Will Not Occur
CONDITIONS TO AVOID: None known.		

11. Toxicological Information

Argon is a simple asphyxiant. The welding process may generate hazardous fumes and gases. (See sections 10 and 16.)

12. Ecological Information

No adverse ecological effects expected. Argon does not contain any Class I or Class II ozone-depleting chemicals. Argon is not listed as a marine pollutant by DOT.

13. Disposal Considerations

WASTE DISPOSAL METHOD: Do not attempt to dispose of residual or unused quantities. Return cylinder to supplier. For emergency disposal, secure cylinder in a well-ventilated area or outdoors; then slowly discharge gas to the atmosphere.

14. Transport Information

DOT/IMO SHIPPING NAME: Argon, compressed

HAZARD CLASS: 2.2 **IDENTIFICATION NUMBER:** UN 1006 **PRODUCT RQ:** None

SHIPPING LABEL(s): NONFLAMMABLE GAS

PLACARD (when required): NONFLAMMABLE GAS

SPECIAL SHIPPING INFORMATION: Cylinders should be transported in a secure position, in a well-ventilated vehicle. Cylinders transported in an enclosed, nonventilated compartment of a vehicle can present serious safety hazards.

Shipment of compressed gas cylinders that have been filled without the owner's consent is a violation of federal law [49 CFR 173.301(b)].

15. Regulatory Information

The following selected regulatory requirements may apply to this product. Not all such requirements are identified. Users of this product are solely responsible for compliance with all applicable federal, state, and local regulations.

U.S. FEDERAL REGULATIONS:**EPA (ENVIRONMENTAL PROTECTION AGENCY)**

CERCLA: COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (40 CFR Parts 117 and 302):

Reportable Quantity (RQ): None

SARA: SUPERFUND AMENDMENT AND REAUTHORIZATION ACT:

SECTIONS 302/304: Require emergency planning based on Threshold Planning Quantity (TPQ) and release reporting based on Reportable Quantities (RQ) of Extremely Hazardous Substances (EHS) (40 CFR Part 355):

TPQ (TPQ): None

EHS RQ (40 CFR 355): None

SECTIONS 311/312: Require submission of MSDSs and reporting of chemical inventories with identification of EPA hazard categories. The hazard categories for this product are as follows:

IMMEDIATE: No

PRESSURE: Yes

DELAYED: No

REACTIVITY: No

FIRE: No

SECTION 313: Requires submission of annual reports of release of toxic chemicals that appear in 40 CFR Part 372.

Argon does not require reporting under Section 313.

RELEASE PREVENTION: Requires development and implementation of risk management programs at facilities that manufacture, use, store, or otherwise handle regulated substances in quantities that exceed specified thresholds.

Argon is not listed as a regulated substance.

TSCA: TOXIC SUBSTANCES CONTROL ACT: Argon is listed on the TSCA inventory.

OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

29 CFR 1910.119: PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: Requires facilities to develop a process safety management program based on Threshold Quantities (TQ) of highly hazardous chemicals.

Argon is not listed in Appendix A as a highly hazardous chemical.

STATE REGULATIONS:

CALIFORNIA: Argon is not listed by California under the SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 (Proposition 65).

PENNSYLVANIA: Argon is subject to the PENNSYLVANIA WORKER AND COMMUNITY RIGHT-TO-KNOW ACT (35 P.S. Sections 7301-7320).

16. Other Information

Be sure to read and understand all labels and instructions supplied with all containers of this product.

ADDITIONAL SAFETY AND HEALTH HAZARDS: Using argon in welding and cutting may create additional hazards:

FUMES AND GASES can be dangerous to your health and may cause serious lung disease.

- **Keep your head out of fumes. Do not breathe fumes and gases.** Use enough ventilation, local exhaust, or both to keep fumes and gases from your breathing zone and the general area. Short-term overexposure to fumes may result in dizziness, nausea, dryness or irritation of nose, throat, and eyes, or other similar discomfort.

Fumes and gases cannot be classified simply. The amount and type depend on the metal being worked and the process, procedure, equipment, and supplies used. Possible dangerous materials may be found in fluxes, electrodes, and other materials. Get an MSDS for every material you use.

Contaminants in the air may add to the hazard of fumes and gases. One such contaminant, chlorinated hydrocarbon vapors from cleaning and degreasing activities, poses a special risk.

- **Do not use electric arcs in the presence of chlorinated hydrocarbon vapors—highly toxic phosgene may be produced.**

Metal coatings such as paint, plating, or galvanizing may generate harmful fumes when heated. Residues from cleaning materials may also be harmful.

- **Avoid arc operations on parts with phosphate residues (anti-rust, cleaning preparations)—highly toxic phosphine may be produced.**

To find the quantity and content of fumes and gases, you can take air samples. By analyzing these samples, you can find out what respiratory protection you need. One recommended sampling method is to take air from inside the worker's helmet or from the worker's breathing zone. See ANSI/AWSF1.1, available from the American Welding Society, 550 N.W. Le Jeune Rd., Miami, FL 33126.

For other safe practices information and a more detailed description of the health hazards of welding and their consequences, see your welding products supplier.

Acute: Gases, fumes, and dusts may cause irritation to the eyes, lungs, nose, and throat. Some toxic gases associated with welding and related processes may cause pulmonary edema, asphyxiation, and death. Acute overexposure may include signs and symptoms such as watering eyes, nose and throat irritation, headache, dizziness, difficulty breathing, frequent coughing, or chest pains.

Chronic: Protracted inhalation of air contaminants may lead to their accumulation in the lungs, a condition that may be seen as dense areas on chest x-rays. The severity of change is proportional to the length of exposure. The changes seen are not necessarily associated with symptoms or signs of reduced lung function or disease. In addition, the changes on x-rays may be caused by non-work-related factors such as smoking, etc.

PROTECTIVE CLOTHING AND EQUIPMENT FOR WELDING OPERATIONS:

PROTECTIVE GLOVES: Wear welding gloves.

EYE PROTECTION: Wear a helmet or use a face shield with a filter lens. Select lens per ANSI Z49.1. Provide protective screens and flash goggles if needed to protect others; select per OSHA 29 CFR 1910.133.

OTHER PROTECTIVE EQUIPMENT: Wear hand, head, and body protection. (See ANSI Z49.1.) Worn as needed, these help prevent injury from radiation, sparks, and electrical shock. Minimum protection includes welder's gloves and a face shield. For added protection, consider arm protectors, aprons, hats, shoulder protection, and dark, substantial clothing.

For other safe practices information and a more detailed description of the health hazards of welding and their consequences, ask your welding products supplier for a copy of Praxair's free safety booklet, P-52-529, *Precautions and Safe Practices for Electric Welding and Cutting*.

OTHER HAZARDOUS CONDITIONS OF HANDLING, STORAGE, AND USE: *High-pressure gas.* Use piping and equipment adequately designed to withstand pressures to be encountered. *Gas can cause rapid suffocation.* Store and use with adequate ventilation at all times. Close valve after each use; keep closed even when empty. *Arcs and sparks can ignite combustible materials.* Prevent fires. Refer to NFPA 51B, *Cutting and Welding Processes*. *Do not strike an arc on the cylinder.* The defect produced by an arc burn could lead to cylinder rupture. *Never work on a pressurized system.* If there is a leak, close the cylinder valve. Blow the system down in a safe and environmentally sound manner in compliance with all federal, state, and local laws; then repair the leak. *Never place a compressed gas cylinder where it may become part of an electrical circuit.*

Read and understand the manufacturer's instructions and the precautionary label on the product. See American National Standard Z49.1, *Safety In Welding and Cutting*, published by the American Welding Society and OSHA Publication 2206 (29 CFR 1910), U.S. Government Printing Office, Washington, DC 20402 for more details. For further safety and health information, ask your welding products supplier for manufacturers' safety publications.

MIXTURES: When you mix two or more gases or liquefied gases, you can create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an industrial hygienist or other trained person when you evaluate the end product. Remember, gases and liquids have properties that can cause serious injury or death.

NFPA RATINGS:

HEALTH = 0
 FLAMMABILITY = 0
 INSTABILITY = 0
 SPECIAL = SA (CGA recommends this to designate simple Asphyxiant.)

HMS RATINGS:

HEALTH = 0
 FLAMMABILITY = 0
 PHYSICAL HAZARD = 0

STANDARD VALVE CONNECTIONS FOR U.S. AND CANADA:

THREADED:

0-3000 psig CGA-580
 3001-5500 psig CGA-680
 5001-7500 psig CGA-677

PIN-INDEXED YOKE:

0-3000 psig CGA-960 (Medical Use)

ULTRA-HIGH-INTEGRITY CONNECTION:

0-3000 psig CGA-718

Use the proper CGA connections. **DO NOT USE ADAPTERS.** Additional limited-standard connections may apply. See CGA pamphlet V-1 listed below.

Ask your supplier about free Praxair safety literature as referred to in this MSDS and on the label for this product. Further information about this product can be found in the following pamphlets published by the Compressed Gas Association, Inc. (CGA), 4221 Walnut Road, 5th Floor, Chantilly, VA 20151-2923, Telephone (703) 788-2700.

- AV-1 *Safe Handling and Storage of Compressed Gases*
- G-11.1 *Commodity Specification for Argon*
- P-1 *Safe Handling of Compressed Gases in Containers*
- P-9 *Inert Gases—Argon, Nitrogen, and Helium*
- P-14 *Accident Prevention in Oxygen-Rich, Oxygen-Deficient Atmospheres*
- SB-2 *Oxygen-Deficient Atmospheres*
- V-1 *Compressed Gas Cylinder Valve Inlet and Outlet Connections*
- *Handbook of Compressed Gases, Fourth Edition*

Praxair asks users of this product to study this MSDS and become aware of product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this MSDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information.

The opinions expressed herein are those of qualified experts within Praxair, Inc. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and the conditions of use of the product are not within the control of Praxair, Inc., it is the user's obligation to determine the conditions of safe use of the product.

Praxair MSDSs are furnished on sale or delivery by Praxair or the independent distributors and suppliers who package and sell our products. To obtain current Praxair MSDSs for these products, contact your Praxair sales representative or local distributor or supplier. If you have questions regarding Praxair MSDSs, would like the form number and date of the latest MSDS, or would like the names of the Praxair suppliers in your area, please write the Praxair Call Center (Phone: 1-800-PRAXAIR; Address: Praxair Call Center, Praxair, Inc., PO Box 44, Tonawanda, NY 14151-0044).

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 **PRAXAIR**

Praxair, Inc.
39 Old Ridgebury Road
Danbury, CT 06810-5113

Printed in USA

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BOC GASES

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: ARGOSHIELD GAS #5C, #8C, #10C, #15C, #20C, #25C AND #30C

1. Chemical Product and Company Identification

BOC Gases,
Division of,
The BOC Group, Inc.
575 Mountain Avenue
Murray Hill, NJ 07974

BOC Gases
Division of
BOC Canada Limited
5975 Falbourn Street, Unit 2
Mississauga, Ontario L5R 3W6

TELEPHONE NUMBER: (908) 464-8100
24-HOUR EMERGENCY TELEPHONE
NUMBER: CHEMTREC (800) 424-9300

TELEPHONE NUMBER: (905) 501-1700
24-HOUR EMERGENCY TELEPHONE
NUMBER: (905) 501-0802
EMERGENCY RESPONSE PLAN NO: 2-0101

PRODUCT NAME: ARGOSHIELD GAS #5C, #8C, #10C, #15C, #20C, #25C AND #30C
CHEMICAL NAME: Carbon Dioxide in Argon
COMMON NAMES/SYNONYMS: Argon in Carbon Dioxide; ARGOSHIELD #10C; ARGOSHIELD #15C; ARGOSHIELD #20C; ARGOSHIELD #25C; ARGOSHIELD #30C; ARGOSHIELD #5C; ARGOSHIELD #8C; Carbon Dioxide in Argon
TDG (Canada) CLASSIFICATION: 2.2
WHMIS CLASSIFICATION: A

PREPARED BY: Loss Control (908)464-8100/(905)501-1700
PREPARATION DATE: 6/1/95
REVIEW DATES: 6/1/99

2. Composition, Information on Ingredients

EXPOSURE LIMITS¹:

INGREDIENT	% VOLUME	PEL-OSHA ²	TLV-ACGIH ³	LD ₅₀ or LC ₅₀ Route/Species
Argon FORMULA: Ar CAS: 7440-37-1 RTECS #: CF2300000	15.0 to 95.0	Simple Asphyxiant	Simple Asphyxiant	Not Available
Carbon Dioxide FORMULA: CO ₂ CAS: 124-38-0 RTECS #: FF6400000	5.0 to 85.0	6000 ppm TWA	6000 ppm TWA 30,000 ppm STEL	Not Available

¹ Refer to individual state of provincial regulations, as applicable, for limits which may be more stringent than those listed here.

² As stated in 29 CFR 1910, Subpart Z (revised July 1, 1993)

³ As stated in the ACGIH 1998-1999 Threshold Limit Values for Chemical Substances and Physical Agents.

IDLH (Carbon Dioxide): 40,000 ppm

OSHA Regulatory Status: This material is classified as hazardous under OSHA regulations.

MSDS: G-107
Revised: 6/1/99

PRODUCT NAME: ARGOSHIELD GAS #5C, #8C, #10C, #15C, #20C, #25C AND #30C

3. Hazards Identification

EMERGENCY OVERVIEW
 Odorless, colorless, non-flammable gas. Simple Asphyxiant - This product does not contain oxygen and may cause asphyxia if released in a confined area. Maintain oxygen levels above 18.5%. Carbon dioxide exposure can cause nausea and respiratory problems. High concentrations of carbon dioxide may cause vasodilation leading to circulatory collapse. Contents under pressure. Max. gas temp below 125 °F.

ROUTE OF ENTRY:

Skin Contact No	Skin Absorption No	Eye Contact No	Inhalation Yes	Ingestion No
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HEALTH EFFECTS:

Exposure Limits Yes	Irritant No	Sensitization No
Teratogen No	Reproductive Hazard No	Mutagen No
Synergistic Effects None Reported		

Carcinogenicity: - NTP: No IARC: No OSHA: No

EYE EFFECTS:

None known or expected.

SKIN EFFECTS:

None known or expected.

INGESTION EFFECTS:

None known or expected.

INHALATION EFFECTS:

Carbon dioxide is a cerebral vasodilator. Inhaling large concentrations can cause rapid circulatory insufficiency leading to coma and death. Depending on concentration of carbon dioxide present, asphyxiation may occur before the effects of carbon dioxide exposure. Chronic, harmful effects are not known from repeated inhalation of low concentrations of carbon dioxide. Low concentrations of carbon dioxide cause increased respiration and headache.

Oxygen deficiency during pregnancy has produced developmental abnormalities in humans and experimental animals.

Effects of oxygen deficiency resulting from simple asphyxiants may include: rapid breathing, diminished mental alertness, impaired muscular coordination, faulty judgement, depression of all sensations, emotional instability, and fatigue. As asphyxiation progresses, nausea, vomiting, prostration, and loss of consciousness may result eventually leading to convulsions, coma, and death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

MSDS: G-107
 Revised: 6/1/99

PRODUCT NAME: ARGOSHIELD GAS #5C, #8C, #10C, #15C, #20C, #25C AND #30C

NFPA HAZARD CODES	HMIS HAZARD CODES	RATINGS SYSTEM
Health: 0	Health: 0	0 = No Hazard
Flammability: 0	Flammability: 0	1 = Slight Hazard
Instability: 0	Reactivity: 0	2 = Moderate Hazard
		3 = Serious Hazard
		4 = Severe Hazard

4. First Aid Measures

EYES:
None normally required.

SKIN:
None normally required.

INGESTION:
None required.

INHALATION
PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. Victims should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area. If they are not breathing, administer artificial resuscitation. Further treatment should be symptomatic and supportive.

5. Fire Fighting Measures

Conditions of Flammability: Nonflammable		
Flash point: None	Method: Not Applicable	Autoignition Temperature: None
LEL(%): None		UEL(%): None
Hazardous combustion products: None		
Sensitivity to mechanical shock: None		
Sensitivity to static discharge: None		

FIRE AND EXPLOSION HAZARDS:
Nonflammable. Cylinder may rupture violently from pressure when involved in a fire situation.

EXTINGUISHING MEDIA:
Use extinguishing media suitable for combustible materials involved in the fire. Use water spray to cool fire exposed containers.

FIREFIGHTING MEDIA:
Firefighters should wear respiratory protection (SCBA) and full turnout or Bunker gear. Continue to cool fire-exposed cylinders until well after flames are extinguished.

6. Accidental Release Measures

Evacuate all personnel from affected area. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with inert gas prior to attempting repairs. If leak is in container or container valve, contact the appropriate emergency telephone number listed in Section 1 or call your closest BOC location.

PRODUCT NAME: ARGOSHIELD GAS #5C, #8C, #10C, #15C, #20C, #25C AND #30C**7. Handling and Storage**

Electrical Classification:
Nonhazardous.

These mixtures are noncorrosive and may be used with any common structural material.

Use only in well-ventilated areas. Valve protection caps must remain in place unless container is secured with valve outlet piped to use point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure reducing regulator when connecting cylinder to lower pressure (<3000 psig) piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the system.

Protect cylinders from physical damage. Store in cool, dry, well-ventilated area away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 125°F (52°C). Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty cylinders should be segregated. Use a "first in-first out" inventory system to prevent full cylinders being stored for excessive periods of time.

For additional storage recommendations, consult Compressed Gas Association's Pamphlets P-1 and Safety Bulletin SB-2.

Never carry a compressed gas cylinder or a container of a gas in a cryogenic liquid form in an enclosed space such as a car trunk, van, or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.

8. Exposure Controls, Personal Protection**ENGINEERING CONTROLS:**

Use local exhaust to prevent accumulation of high concentrations and control air contaminants to at or below acceptable exposure guidelines. Maintain atmospheric O₂ at or above 19.5%.

EYE/FACE PROTECTION:

Safety goggles or glasses.

SKIN PROTECTION:

Protective industrial work gloves of any suitable material.

RESPIRATORY PROTECTION:

A supplied air respirator with full facepiece equipped with an escape bottle or a self-contained breathing apparatus should be available for emergency use. Operate this equipment in the positive pressure demand mode.

OTHER/GENERAL PROTECTION

Safety shoes.

PRODUCT NAME: ARGOSHIELD GAS #5C, #8C, #10C, #16C, #20C, #25C AND #30C

9. Physical and Chemical Properties

PARAMETER	VALUE	UNITS
Physical state (gas, liquid, solid)	: Gas	
Vapor pressure	: Not Available	
Vapor density (Air = 1)	: Not Available	
Evaporation point	: Not Available	
Boiling point	: Not Available	
Freezing point	: Not Available	
pH	: Not Available	
Specific gravity (Air = 1)	: 1.39	
Oil/water partition coefficient	: Not Available	
Solubility (H ₂ O)	: Slight	
Odor threshold	: Not Applicable	
Odor and appearance	: Odorless; colorless Gas	

10. Stability and Reactivity

STABILITY:

Stable

INCOMPATIBLE MATERIALS:

None.

HAZARDOUS DECOMPOSITION PRODUCTS:

None.

HAZARDOUS POLYMERIZATION:

Will not occur.

11. Toxicological Information

REPRODUCTIVE:

Oxygen deficiency during pregnancy has produced developmental abnormalities in humans and experimental animals.

Exposure of female rats to 60,000 ppm carbon dioxide for 24 hours has produced toxic effects to the embryo and fetus in pregnant rats. Toxic effects to the reproductive system have been observed in other mammalian species at similar concentrations.

OTHER:

Inhaling high concentrations of CO₂ may cause circulatory insufficiency leading to coma and death. Chronic, harmful effects are not known from repeated inhalation of low (3 to 5 %) concentrations.

12. Ecological Information

No data given.

MSDS: G-107

Revised: 6/1/99

PRODUCT NAME: ARGOSHIELD GAS #5C, #8C, #10C, #15C, #20C, #25C AND #30C

13. Disposal Considerations

Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container PROPERLY LABELED, WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE to BOC Gases or authorized distributor for proper disposal.

14. Transport Information

PARAMETER	United States DOT	Canada TDG
PROPER SHIPPING NAME:	Compressed gases, n.o.s. (Argon, Carbon Dioxide)	Compressed gases, n.o.s.
HAZARD CLASS:	2.2	2.2
IDENTIFICATION NUMBER:	UN 1966	UN 1966
SHIPPING LABEL:	NONFLAMMABLE GAS	NONFLAMMABLE GAS

15. Regulatory Information

SARA TITLE III NOTIFICATIONS AND INFORMATION

SARA TITLE III - HAZARD CLASSES:

Acute Health Hazard

Sudden Release of Pressure Hazard

16. Other Information

ACGIH	American Conference of Governmental Industrial Hygienists
DOT	Department of Transportation
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
SARA	Superfund Amendments and Reauthorization Act
STEL	Short Term Exposure Limit
TDG	Transportation of Dangerous Goods
TLV	Threshold Limit Value
WHMIS	Workplace Hazardous Materials Information System

Compressed gas cylinders shall not be refilled without the express written permission of the owner. Shipment of a compressed gas cylinder which has not been filled by the owner or with his/her (written) consent is a violation of transportation regulations.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES:

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).

J & M Cylinder Gases, Inc.

1702 - 8th Street, N.W.
Decatur, Alabama 38601
(256) 355-2426

Material Safety Data Sheet**1. Chemical Product and Company Identification**

Product Name: Acetylene, dissolved (MSDS No. P-4559-H)	Trade Name: Acetylene
Chemical Name: Acetylene	Synonyms: Acetylen, ethine, ethyne, narcylene
Formula: C ₂ H ₂	Chemical Family: Alkyne
Telephone: (800) 424-9300 CHEMTREC	

* Call emergency numbers 24 hours a day only for spills, leaks, fire, exposure, or accidents involving this product. For routine information, contact your supplier. J & M Cylinder Gases, Inc
(256) 355-2426

2. Composition/Information on Ingredients

This section covers materials of manufacture only. See sections 3, 8, 10, 11, 15, and 16 for information on by-products generated during use, especially use in welding and cutting. For custom mixtures of this product, request an MSDS for each component. See section 16 for important information about mixtures.

INGREDIENT	CAS NUMBER	CONCENTRATION	OSHA PEL	ACGIH TLV-TWA**
Acetylene	74-86-2	>99%*	None currently established	Simple asphyxiant

* The symbol > means "greater than"; the symbol <, "less than."

** Acetylene cylinders are filled with a porous material containing acetone (CAS 67-64-1) into which the acetylene is dissolved. ACGIH (1998) has established a TLV-TWA of 500 ppm for acetone and a STEL of 750 ppm.

3. Hazards Identification**EMERGENCY OVERVIEW**

DANGER! Flammable gas under pressure.

Can form explosive mixtures with air.

Fusible plugs in top, bottom, or valve melt at 208-220°F (98-104°C).

Do not discharge at pressures above 15 psig (103 kPa).

May cause dizziness and drowsiness.

Self-contained breathing apparatus may be required by rescue workers.

Odor: Garlic-like

a TLV-TWA of 5 mg/m³ for welding fumes not otherwise classified (NOC) that may be generated during welding with this product. TLV-TWAs should be used as a guide in the control of health hazards and not as fine lines between safe and dangerous concentrations.

EFFECTS OF A SINGLE (ACUTE) OVEREXPOSURE:

INHALATION—Asphyxiant. Effects are due to lack of oxygen. Moderate concentrations may cause headache, drowsiness, dizziness, excitation, excess salivation, nausea, vomiting, and unconsciousness. The vapor from a liquid release may also cause incoordination and abdominal pain. Effects may be delayed. Lack of oxygen can kill.

SKIN CONTACT—No harm expected from vapor. Liquid (acetone) may cause frostbite.

SWALLOWING—An unlikely route of exposure, but frostbite of the lips and mouth may result from contact with the liquid. If swallowed, the liquid may cause nausea.

EYE CONTACT—Vapor containing acetone may irritate the eyes. Liquid may irritate and cause frostbite.

EFFECTS OF REPEATED (CHRONIC) OVEREXPOSURE: No harm expected.

OTHER EFFECTS OF OVEREXPOSURE: Asphyxiant. Lack of oxygen can kill.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: The toxicology and the physical and chemical properties of this product suggest that overexposure is unlikely to aggravate existing medical conditions.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION: None known.

CARCINOGENICITY: This product is not listed by NTP, OSHA, or IARC.

4. First Aid Measures

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, trained personnel may give oxygen. Call a physician.

SKIN CONTACT: For exposure to liquid, immediately warm frostbite area with warm water not to exceed 105°F (41°C). In case of massive exposure, remove contaminated clothing while showering with warm water. Call a physician.

SWALLOWING: If liquid is swallowed, do not induce vomiting. Call a physician.

EYE CONTACT: In case of splash contamination, immediately flush eyes thoroughly with warm water for at least 15 minutes. Hold the eyelids open and away from the eyeballs to ensure that all surfaces are flushed thoroughly. Urgently seek the advice of a physician, preferably an ophthalmologist.

NOTES TO PHYSICIAN: Aspirated acetone may cause severe lung damage. If a large quantity of material has been swallowed, stomach contents should be evacuated quickly in a manner that avoids aspiration. Otherwise, there is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire Fighting Measures

FLASH POINT (test method)	0°F (-17.8°C)	AUTOIGNITION TEMPERATURE	581°F (305°C) at 1 atm
FLAMMABLE LIMITS IN AIR, % by volume	LOWER	2.5%	UPPER 100%

EXTINGUISHING MEDIA: See the following paragraphs. See CGA Pamphlet SB-4, *Handling Acetylene Cylinders in Fire Situations*, listed in section 16, for further information.

SPECIAL FIRE FIGHTING PROCEDURES: DANGER! Flammable gas under pressure. Evacuate all personnel from danger area. Immediately cool cylinders with water spray from maximum distance taking care not to extinguish flames. If flames are accidentally extinguished, explosive re-ignition may occur. Use self-contained breathing apparatus. Remove ignition sources if without risk. Stop flow of gas if without risk while continuing cooling water spray. Remove all cylinders from area of fire if without risk. Allow fire to burn out. On-site fire brigades must comply with OSHA 29 CFR 1910.156.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Extremely flammable gas. Forms explosive mixtures with air and oxidizing agents. Heat of fire can build pressure in cylinder and cause it to rupture. Acetylene cylinders are provided with pressure relief devices designed to vent contents when exposed to elevated temperature. No part of a cylinder should be subjected to a temperature higher than 125°F (52°C). If venting or leaking acetylene catches fire, do not extinguish flames. Flammable vapors may spread from leak, creating an explosive re-ignition hazard. Vapors can be ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharge, or other ignition sources at locations distant from product handling point. Explosive atmospheres may linger. Before entering area, especially confined areas, check atmosphere with an approved explosion meter.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: DANGER! Flammable gas under pressure. Forms explosive mixtures with air. Immediately evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Remove all sources of ignition if without risk. Reduce vapors with fog or fine water spray. Shut off flow if without risk. Ventilate area or move leaking cylinder to well-ventilated area. Flammable gas may spread from leak. Before entering area, especially confined areas, check atmosphere with an appropriate device.

WASTE DISPOSAL METHOD: Prevent waste from contaminating the surrounding environment. Keep personnel away. Discard any product, residue, disposable container, or lines in an environmentally acceptable manner, in full compliance with federal, state, and local regulations. If necessary, call your local supplier for assistance.

7. Handling and Storage

PRECAUTIONS TO BE TAKEN IN STORAGE: Store and use with adequate ventilation. Separate acetylene cylinders from oxygen and other oxidizers by at least 20 ft (6.1 m), or use a barricade of noncombustible material. This barricade should be at least 5 ft (1.53 m) high and have a fire resistance rating of at least ½ hour. Storage in excess of 2,500 cu ft (70.79 m³) is prohibited in buildings with other

occupancies. Fully secure cylinders upright to prevent cylinders designed to accept a valve protection cap must be provided with a cap. Screw cap firmly in place by hand. Post "No Smoking or Open Flames" signs in storage and use areas. There must be no sources of ignition. All electrical equipment in storage areas must be explosion-proof. Storage areas must meet national electric codes for Class 1 hazardous areas. Store only where temperature will not exceed 125°F (52°C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.

PRECAUTIONS TO BE TAKEN IN HANDLING: Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. All piped acetylene systems and associated equipment must be grounded. Electrical equipment must be non-sparking or explosion-proof. Leak check with soapy water; never use a flame. Never use copper piping for acetylene service; use only steel or wrought iron. Open acetylene cylinder valves the minimum amount required for acceptable flow; this will allow you to close valves as quickly as possible in an emergency. Do not open acetylene cylinder valves more than 1½ turns. Never use acetylene at pressures exceeding 15 psig (103.5 kPa). Acetylene cylinders are heavier than other cylinders because they are packed with a porous material and acetone. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert an object (e.g., wrench, screwdriver, pry bar) into cap openings; doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Open valve slowly. If valve is hard to open, discontinue use and contact your supplier. Never strike an arc on a compressed gas cylinder or make a cylinder a part of an electrical circuit. For other precautions in using acetylene, see section 16.

8. Exposure Controls/Personal Protection

VENTILATION/ENGINEERING CONTROLS:

LOCAL EXHAUST—Use a local exhaust system, if necessary, to prevent oxygen deficiency and to keep hazardous fumes and gases below applicable TLVs in the worker's breathing zone.

MECHANICAL (general)—General exhaust ventilation may be acceptable if it can maintain an adequate supply of air and keep hazardous fumes and gases below the applicable TLVs in the worker's breathing zone.

SPECIAL—None

OTHER—None

RESPIRATORY PROTECTION: Use air-purifying or air-supplied respirators, as appropriate, where local or general exhaust ventilation is inadequate. Adequate ventilation must keep worker exposure below applicable TLVs for fumes, gases, and other by-products of welding with acetylene. See sections 3, 10, and 16 for details. An air-supplied respirator must be used in confined spaces. Respiratory protection must conform to OSHA rules as specified in 29 CFR 1910.134.

SKIN PROTECTION: Wear work gloves when handling cylinders; welding gloves for welding and cutting.

EYE PROTECTION: Wear goggles with filter lenses selected as per ANSI Z49.1. Provide protective screens and goggles, if necessary, to protect others. Select as per OSHA 29 CFR 1910.33. For welding, see section 16.

OTHER PROTECTIVE EQUIPMENT: Metatarsal shoes for cylinder handling. Select in accordance with OSHA 29 CFR 1910.132 and 1910.133. For welding, see section 16. Regardless of protective equipment, never touch live electrical parts.

9. Physical and Chemical Properties

MOLECULAR WEIGHT:	26.04
SPECIFIC GRAVITY (Air = 1) at 70°F (21.1°C) and 1 atm:	0.903
GAS DENSITY at 32°F (0°C) and 1 atm:	0.07314 lb/ft ³ (1.1716 kg/m ³)
VAPOR PRESSURE at 70°F (21.1°C):	635 psig (4378 kPa)*
SOLUBILITY IN WATER, vol/vol at 32°F (0°C) and 1 atm:	1.7
PERCENT VOLATILES BY VOLUME:	100
BOILING POINT at 10 psig (68.9 kPa):	-103°F (-75°C)
MELTING POINT at 10 psig (68.9 kPa):	-116°F (-82.2°C)

APPEARANCE, ODOR, AND STATE: Colorless gas. Acetylene of 100% purity is odorless, but commercial acetylene has a distinctive garlic-like odor.

*Maximum cylinder pressure: 250 psig (kPa) at 70°F (21.1°C)

10. Stability and Reactivity

STABILITY: Unstable* Stable

*Acetylene is stable as shipped. Avoid use at pressures above 15 psig (103 kPa).

INCOMPATIBILITY (materials to avoid): Copper, silver, mercury, or their alloys; oxidizing agents; acids; halogens; moisture.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition or burning may produce CO/CO₂/H₂. The welding and cutting process may form reaction products such as carbon monoxide and carbon dioxide. Other decomposition products of normal operation originate from the volatilization, reaction, or oxidation of the material being worked.

HAZARDOUS POLYMERIZATION: May Occur Will Not Occur

CONDITIONS TO AVOID: Elevated temperature and pressure and/or the presence of a catalyst.

11. Toxicological Information

The welding process may generate hazardous fumes and gases. (See sections 3, 10, 15, and 16.)

12. Ecological Information

No adverse ecological effects expected. Acetylene does not contain any Class I or Class II ozone-depleting chemicals. Acetylene is not listed as a marine pollutant by DOT.

13. Disposal Considerations

WASTE DISPOSAL METHOD: Do not attempt to dispose of residual or unused quantities. Return cylinder to supplier.

14. Transport Information

DOT/IMO SHIPPING NAME:	Acetylene, dissolved		
HAZARD CLASS:	2.1	IDENTIFICATION NUMBER:	UN 1001
SHIPPING LABEL(s):		PRODUCT RQ:	Not applicable
PLACARD (when required):	FLAMMABLE GAS		

SPECIAL SHIPPING INFORMATION: Cylinders should be transported in a secure position, in a well-ventilated vehicle. Cylinders transported in an enclosed, nonventilated compartment of a vehicle can present serious safety hazards.

Shipment of compressed gas cylinders that have been filled without the owner's consent is a violation of federal law [49 CFR 173.301(b)].

15. Regulatory Information

The following selected regulatory requirements may apply to this product. Not all such requirements are identified. Users of this product are solely responsible for compliance with all applicable federal, state, and local regulations.

U.S. FEDERAL REGULATIONS:

EPA (ENVIRONMENTAL PROTECTION AGENCY)

CERCLA: COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (40 CFR Parts 117 and 302):

Reportable Quantity (RQ): None

SARA: SUPERFUND AMENDMENT AND REAUTHORIZATION ACT:

SECTIONS 302/304: Require emergency planning based on Threshold Planning Quantity (TPQ) and release reporting based on Reportable Quantities (RQ) of extremely hazardous substances (40 CFR Part 355):

Threshold Planning Quantity (TPQ): None

Extremely Hazardous Substances (40 CFR 355): None

SECTIONS 311/312: Require submission of MSDSs and reporting of chemical inventories with identification of EPA hazard categories. The hazard categories for this product are as follows:

IMMEDIATE: No

PRESSURE: Yes

DELAYED: No

REACTIVITY: Yes

FIRE: Yes

SECTION 313: Requires submission of annual reports of release of toxic chemicals that appear in 40 CFR Part 372.

Acetylene does not require reporting under Section 313.

RELEASE PREVENTION: Requires development and implementation of risk management programs at facilities that manufacture, use, store, or otherwise handle regulated substances in quantities that exceed specified thresholds.

Acetylene is listed as a regulated substance in quantities of 10,000 lbs (4536 kg) or greater.

TSCA: TOXIC SUBSTANCES CONTROL ACT: Acetylene is listed on the TSCA inventory.

OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

29 CFR 1910.119: PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: Requires facilities to develop a process safety management program based on Threshold Quantities (TQ) of highly hazardous chemicals.

Acetylene is not listed in Appendix A as a highly hazardous chemical. However, any process that involves a flammable gas on site in one location in quantities of 10,000 lbs (4536 kg) or greater is covered under this regulation unless the gas is used as a fuel.

STATE REGULATIONS:

CALIFORNIA: Acetylene is not listed by California under the SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 (Proposition 65).

WARNING: The combustion of acetylene produces carbon monoxide—a chemical known to the State of California to cause birth defects or other reproductive harm.

(California Health and Safety Code §25249.5 et seq.)

PENNSYLVANIA: Acetylene is subject to the PENNSYLVANIA WORKER AND COMMUNITY RIGHT-TO-KNOW ACT (35 P.S. Sections 7301-7320).

16. Other Information

ADDITIONAL SAFETY AND HEALTH HAZARDS: Using acetylene in welding and cutting may create additional hazards:

FUMES AND GASES can be dangerous to your health and may cause serious lung disease.

- **Keep your head out of fumes. Do not breathe fumes and gases. Use enough ventilation, local exhaust, or both to keep fumes and gases from your breathing zone and the general area. Short-term overexposure to fumes may cause dizziness, nausea, and dryness or irritation of the nose, throat, and eyes or may cause other similar discomfort.**

Fumes and gases cannot be classified simply. The amount and type depend on the metal being worked and the process, procedure, equipment, and supplies used. Possible dangerous materials may be found in fluxes, electrodes, and other materials. Get an MSDS for every material you use.

Contaminants in the air may add to the hazard of fumes and gases. One such contaminant, chlorinated hydrocarbon vapors from cleaning and degreasing activities, poses a special risk.

- **Do not use electric arcs in the presence of chlorinated hydrocarbon vapors—highly toxic phosgene may be produced.**

Product: Acetylene

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Date: May 1999

Metal coatings such as paint, plating, or galvanizing may generate harmful fumes when heated. Residues from cleaning materials may also be harmful.

- Avoid arc operations on parts with phosphate residues (anti-rust, cleaning preparations)—highly toxic phosphine may be produced.

To find the quantity and content of fumes and gases, you can take air samples. By analyzing these samples, you can find out what respiratory protection you need. One recommended sampling method is to take air from inside the worker's helmet or from the worker's breathing zone. See AWS F1.1, *Methods for Sampling and Analyzing Gases for Welding and Allied Processes*, available from the American Welding Society, 550 N.W. Le Jeune Rd., Miami, FL 33126.

Read and understand the manufacturer's instructions and the precautionary labels on the products used in welding and cutting. Ask your welding products supplier for a copy of Maxair's free safety booklet, P-2035, *Precautions and Safe Practices for Gas Welding, Cutting, and Heating*, and for other manufacturers' safety publications. For a detailed treatment, get ANSI Z49.1, *Safety in Welding, Cutting, and Allied Processes*, published by the American Welding Society, or see OSHA's Web site at <http://www.osha-slc.gov/SLTC/weldingcuttingbrazing/>.

NOTES TO PHYSICIAN:

Acute: Gases, fumes, and dusts may cause irritation to the eyes, lungs, nose, and throat. Some toxic gases associated with welding and related processes may cause pulmonary edema, asphyxiation, and death. Acute overexposure may include signs and symptoms such as watery eyes, nose and throat irritation, headache, dizziness, difficulty breathing, frequent coughing, or chest pains.

Chronic: Prolonged inhalation of air contaminants may lead to their accumulation in the lungs, a condition that may be seen as dense areas on chest x-rays. The severity of change is proportional to the length of exposure. The changes seen are not necessarily associated with symptoms or signs of reduced lung function or disease. In addition, the changes on x-rays may be caused by non-work-related factors such as smoking, etc.

PROTECTIVE CLOTHING AND EQUIPMENT FOR WELDING OPERATIONS:

PROTECTIVE GLOVES: Wear welding gloves.

EYE PROTECTION: Wear a helmet or use a face shield with a filter lens. Select lens per ANSI Z49.1. Provide protective screens and flash goggles if needed to protect others; select per OSHA 29 CFR 1910.133.

OTHER PROTECTIVE EQUIPMENT: Wear hand, head, and body protection. (See ANSI Z49.1.) Worn as needed, these help prevent injury from radiation, sparks, and electrical shock. Minimum protection includes welder's gloves and a face shield. For added protection consider arm protectors, aprons, hats, shoulder protection, and dark, substantial clothing.

OTHER HAZARDOUS CONDITIONS OF HANDLING, STORAGE, AND USE: *Flammable gas under pressure.* Use piping and equipment adequately designed to withstand pressures to be encountered. Acetylene systems should be installed only by persons knowledgeable of the unique properties of acetylene and trained and experienced in such installation. *Arcs and sparks can ignite combustible materials.* Prevent fires. For more information, get NFPA 51B: *Standard for Fire Prevention During Welding, Cutting, and Other Hotwork*, published by the National Fire Protection Association. *Keep away from heat, sparks, and open flame.* Use only spark-proof tools and explosion-proof equipment. *In choosing tools and equipment, avoid materials incompatible with acetylene.* Copper, silver, and mercury; their salts, compounds, and high-concentration alloys can form explosive compounds with acetylene. Brass

containing less than 65% copper and certain other alloys may become brittle. **Prevent reverse flow.** Use service but may not be adequate if high corrosion or excess moisture is present. **Prevent reverse flow.** Use a check valve or other protective device in any line or piping from the cylinder. **Gas can cause rapid asphyxiation** due to oxygen deficiency. Store and use with adequate ventilation. Close valve after each use; keep closed even when empty. **Do not strike an arc on the cylinder.** The defect produced by an arc burn could lead to cylinder rupture. **Never work on a pressurized system.** If there is a leak, close the cylinder valve. Blow the system down in a safe and environmentally sound manner in compliance with all federal, state, and local laws; then repair the leak. **Never place a compressed gas cylinder where it may become part of an electrical circuit.** When using compressed gases in and around electric welding applications, never ground the cylinders. Grounding exposes the cylinders to damage by the electric welding arc.

Be sure to read and understand all labels and instructions supplied with all containers of this product.

MIXTURES: When you mix two or more gases or liquefied gases, you can create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an industrial hygienist or other trained person when you evaluate the end product. Remember, gases and liquids have properties that can cause serious injury or death.

HAZARD RATING SYSTEMS:

NFPA RATINGS:

HEALTH = 1
 FLAMMABILITY = 4
 REACTIVITY = 3
 SPECIAL = None

HMIS RATINGS:

HEALTH = 1
 FLAMMABILITY = 4
 REACTIVITY = 3

STANDARD VALVE CONNECTIONS FOR U.S. AND CANADA:

THREADED:

The CGA-510 connection is standard for cylinders of greater than 50 cu ft (1.42 m³) capacity. See CGA Pamphlet V-1 for other, limited-standard connections.

PIN-INDEXED YOKE:

Not applicable

ULTRA-HIGH-INTEGRITY CONNECTION:

Not applicable

Use the proper CGA connections. **DO NOT USE ADAPTERS.** Additional limited-standard connections may apply. See CGA pamphlet V-1 listed below.

Ask your supplier about free Praxair safety literature as referred to in this MSDS and on the label for this product. Further information about this product can be found in the following pamphlets published by the Compressed Gas Association, Inc. (CGA), 1725 Jefferson Davis Highway, Arlington, VA 22202-4102, Telephone (703) 412-0900.

- G-1.1 *Commodity Specification for Acetylene*
- G-1 *Acetylene*
- P-1 *Safe Handling of Compressed Gases in Containers*
- SB-4 *Handling Acetylene Cylinders in Fire Situations*
- SB-8 *Use of Oxy-Fuel Gas Welding and Cutting Apparatus*
- V-1 *Compressed Gas Cylinder Valve Inlet and Outlet Connections*
- *Handbook of Compressed Gases, Third Edition*

information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this MSDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information.

Attn: Mike Masfey

13 pgs total

Material Safety Data Sheet



Material Safety Data Sheet Number: 235

Revision Date: February, 2003

Section 1: Product and Company Identification

Product Type: Block Lining

Product Code: Products marked with edge code: HX 3020-1FF → This is for all your part #'s that start w/ GG.

Company Identification

Friction Products Center
Haldex Brake Products Corporation
101 Echlin Blvd
Prattville, AL 36067

Telephone
(334) 365-2145

Section 2: Composition / Information on Hazardous Ingredients

CAS #	Component	% by weight
000100-97-0	Hexamethylenetetramine	< 2 %
000117-81-7	Di(2-ethylhexyl)phthalate	< 1.5 %
001333-86-4	Carbon Black	< 5 %
007440-44-0	Carbon/Graphite	< 20 %
007727-43-7	Barytes	< 35 %
012001-26-2	Mica	< 10 %
014808-60-7	Quartz	< 0.5 %

Remaining ingredients are either non-hazardous, or are contained within this product at concentrations below the de minimis.

Contains No Asbestos

Section 3: Hazards Identification

Emergency Overview

Solid brake block lining, brown to gray in color with a friction material odor. This product is not known to cause any significant, immediate concern for emergency response personnel and presents no known unusual hazard if involved in fire.

Potential Health Effects

Information on Product

Ingestion: There are no known hazards resulting from ingestion of this product.
Inhalation: Dust generated from this product may cause irritation of nose, throat and lungs.
Skin: Prolonged exposure to dust generated from this product may cause skin irritation in some individuals.
Eye: Exposure to dust generated from this product may cause eye irritation.

Information on Components

- 000100-97-0 *Hexamethylenetetramine*
Mild skin irritant. Ingestion may cause urinary tract irritation, skin rash, and digestive disturbances. Large oral doses can cause severe nephritis.
Exposure Routes: ingestion, skin and/or eye contact
Symptoms: Information not found.
Target Organs: respiratory system, kidney
- 000117-81-7 *Di(2-ethylhexyl)phthalate*
This compound is an animal carcinogen.
Exposure routes: inhalation, ingestion, skin and/or eye contact
Symptoms: irritation of eyes, mucous membrane; nausea; diarrhea.
Target Organs: Eyes, respiratory system, central nervous system, liver, reproductive system, gastrointestinal tract.
- 001333-86-4 *Carbon Black*
Potential occupational carcinogen in the presence of polycyclic aromatic hydrocarbons.
Exposure routes: inhalation, skin and/or eye contact.
Symptoms: Cough; Irritation of eyes and skin.
Target Organs: respiratory system, eyes.
- 007440-44-0 *Carbon/Graphite*
Long term inhalation may result in pneumoconiosis.
Exposure Routes: inhalation, skin and/or eye contact
Symptoms: Cough, dyspnea (breathing difficulty), black sputum, decreased pulmonary function, lung fibrosis
Target Organs: respiratory system, cardiovascular system
- 0007727-43-7 *Barytes*
Prolonged or repeated inhalation may cause baritosis, a benign pneumoconiosis, with some signs of chronic bronchial irritation.
Exposure Routes: inhalation, skin and/or eye contact
Symptoms: Cough, dyspnea (breathing difficulty), black sputum, decreased pulmonary function, lung fibrosis
Target Organs: Eyes, respiratory system
- 012001-26-2 *Mica*
May cause Pneumoconiosis.
Exposure Routes: Inhalation
Symptoms: cough; dyspnea; weakness; weight loss.
Target Organs: Lungs

014808-60-7 Quartz

May cause silicosis.

Exposure Routes: Inhalation

Symptoms: coughing; wheezing; dyspnea; impaired pulmonary function.

Target Organs: Respiratory system, lungs.

For additional information, see *Section 11: Toxicological Information*

Section 4: First Aid Measures

First Aid Procedures

Ingestion: Contact a physician.
Inhalation: Remove to fresh air. Contact a physician.
Skin: In case of irritation, remove contaminated clothing and flush affected areas with water. If irritation persists, contact a physician.
Eye: Flush with water for at least 15 minutes. If irritation persists, contact a physician.

Section 5: Fire Fighting Measures

Flash Point: Not applicable
Lower Explosion Limit: Not applicable
Upper Explosion Limit: Not applicable
Autoignition Temperature: Not determined

Material will burn in a fire.
In case of fire, use water spray, dry chemical, foam or carbon dioxide (CO₂).

Section 6: Accidental Release Measures

Avoid generating dust from this product. Clean up using methods that do not generate dust such as vacuum or wet clean up. Avoid pneumatic removal of dust. If dust is generated use a respirator.

Section 7 Handling and Storage

Handling

Handle in accordance with good industrial hygiene and safety practices. Minimize dust generation. Use adequate ventilation if dust is generated.

Inhalation: Avoid prolonged or repeated breathing of dust.
Skin: Avoid prolonged or repeated contact with skin.
Eye: Avoid eye contact.

Storage

Store in a dry area.

Section 8: Exposure Controls / Personal Protection

Exposure Controls

If user operations generate dust, use ventilation to keep exposure to airborne contaminants below applicable exposure limits.

Personal Protective Equipment

Eye / Face: Use protective safety glasses with side shields or goggles if dust is generated.
Skin: Individuals with sensitive skin should wear protective gloves and clothing that covers any skin that may come into repeated or prolonged contact with this product or any dust generated from this product.
Respiratory: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Exposure Guidelines

- 000100-97-0 *Hexamethylenetetramine*
OSHA PEL: 15 mg/m³ TWA, Total Dust; 5 mg/m³ TWA, Respirable Fraction
ACGIH TLV: 10 mg/m³ TWA, Inhalable; Particulate (insoluble) Not otherwise Classified.
- 000117-81-7 *Di(2-ethylhexyl)phthalate*
OSHA PEL: 5 mg/m³ TWA
NIOSH: 5 mg/m³ TWA; 10 mg/m³ STEL
ACGIH TLV: 5 mg/m³ TWA
CANADA: 5 mg/m³ TWA; 10mg/m³ STEL
- 001333-86-4 *Carbon Black*
OSHA PEL: 3.5 mg/m³ TWA
NIOSH: 3.5 mg/m³ TWA; 10 mg/m³ STEL
ACGIH TLV: 3.5 mg/m³ TWA
CANADA: 3.5 mg/m³ TWA; 7 mg/m³ STEL
- 007440-44-0 *Carbon/Graphite*
OSHA PEL: 15 mg/m³ TWA, Total Dust; 5 mg/m³ TWA, Respirable Fraction
CANADA: 10 mg/m³ TWA, Total Dust; 5 mg/m³ TWA, Respirable Fraction
- 007727-43-7 *Barytes*
OSHA PEL: 15 mg/m³ TWA, Total Dust; 5 mg/m³ TWA, Respirable Fraction
ACGIH TLV: 10 mg/m³ TWA, Inhalable (total) particulate matter containing no asbestos and , 1% crystalline silica.
NIOSH: 10 mg/m³ TWA, Total Dust; 5 mg/m³ TWA, Respirable Fraction
- 012001-26-2 *Mica*
OSHA PEL: 20 ppm TWA
NIOSH: 3 mg/m³ TWA
ACGIH TLV: 3 mg/m³ TWA
CANADA: 3 mg/m³ TWA Respirable Mass; 6 mg/m³ TWA Total Mass

014808-60-7

Quartz

OSHA PEL:

ppm: Table Z-3, Respirable dust; 250 / % SiO₂ + 5 millions of particles per cubic foot of air (mppcfa); % crystalline silica based on airborne samples
 mg/m³: Table Z-3, Respirable dust: 10 mg/m³ / % SiO₂ + 2 (determined from the fraction passing a size-selector); Total dusts: 30 mg/m³ / % SiO₂ + 2.

NIOSH:

0.05 mg/m³ TWA

ACGIH TLV:

0.1 mg/m³ TWA

CANADA:

0.1 mg/m³ TWA Respirable Mass; 0.3 mg/m³ TWA Total Mass

Section 9: Physical and Chemical Properties

Appearance / Odor: Solid; Gray to brown brake block lining with friction material odor.
 pH: Approx. 8.0
 Vapor Pressure: N/A
 Vapor Density: N/A
 Boiling Point: N/A
 Melting Point: N/A
 Solubility in H₂O: N/A
 Specific Gravity: 1.9 - 2.1

Section 10: Stability and Reactivity

Stability: Stable
 Conditions to Avoid: None Known
 Materials to Avoid: None Known
 Hazardous Polymerization: Will Not Occur
 Decomposition Products: None Known

Section 11: Toxicological Information

Information on Product

No toxicological information was found for this product.

Information on Components

CAS #	Component	Carcinogen Status			
		IARC	NTP	OSHA	NIOSH
000100-97-0	Hexamethylenetetramine	-	-	-	-
000117-81-7	Di(2-ethylhexyl)phthalate	2B	2	-	Listed
001333-86-4	Carbon Black	2B	-	-	Listed
007440-44-0	Carbon Graphite	-	-	-	-
007727-43-7	Barytes	-	-	-	-
012001-26-2	Mica	-	-	-	-
014808-60-7	Quartz	1	2	-	Listed

Section 12: Ecological Information

No ecological data has been found for this product.

Section 13: Disposal Considerations

Dispose of according to local, state / provincial, and federal requirements.

Section 14: Transport Information

Non-Regulated

Section 15: Regulatory Information

OSHA Hazard Communication Standard 29 CFR 1910.1200

This product meets the OSHA definition of an "article", therefore the OSHA Hazard Communication Standard can be considered inapplicable.

SARA Title III Section 311/312

This product contains substances regulated under OSHA Hazard Communication Standard 29 CFR 1910.1200 at or above OSHA de minimis quantities.

SARA Title III Section 313

This product contains the following substance(s) subject to the reporting requirements (i.e., at or above de minimis quantities) of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) 40 CFR 372.

CAS #	Component	De minimis Conc.	Reporting Threshold
000117-81-7	Di(2-ethylhexyl)phthalate	0.1 %	Standard

TSCA

All ingredients in this product are either naturally occurring and exempt from reporting requirements or are included in EPA's Toxic Substance Control Act Inventory of Chemical Substances.

State List Data

This product contains one or more components found on the following state lists at or above OSHA de minimis quantities:

- Florida Toxic Substances
- Massachusetts Hazardous Substances
- Michigan Critical Materials
- Minnesota Hazardous Substances
- Pennsylvania Hazardous Substances

Section 16: Other Information

MSDS Number: 235
Revision Level: A
Revision Date: February, 2003

Disclaimer

Information presented herein has been compiled from information provided to us by our suppliers and other sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or the use of any product in violation of any patent or in violation of any law or regulation. It is the users' responsibility to determine the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results to be obtained in using any material and, since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.

Material Safety Data Sheet



Material Safety Data Sheet Number: 236

Revision Date: March 2003

Section 1: Product and Company Identification

Product Type: Block Lining

Product Code: Products marked with edge code HX 3010 EF - *This is for parts that start w/ GR.*

Company Identification

Friction Products Center
Haldex Brake Products Corporation
101 Echlin Blvd
Prattville, AL 36067

Telephone
(334) 365-2145

Section 2: Composition / Information on Hazardous Ingredients

CAS #	Component	% by weight
000100-97-0	Hexamethylenetetramine	< 2 %
001332-58-7	Clay	< 2 %
007727-43-7	Barytes	< 50 %
007782-42-5	Natural Graphite	< 10 %
007440-44-0	Synthetic Graphite	< 10 %
014808-60-7	Quartz	< 1 %

Remaining ingredients are either non-hazardous, or are contained within this product at concentrations below the de minimis.

Contains No Asbestos

Section 3: Hazards Identification

Emergency Overview

Solid brake block lining, brown to gray in color with a friction material odor. This product is not known to cause any significant, immediate concern for emergency response personnel and presents no known unusual hazard if involved in fire.

Potential Health Effects

Information on Product

Ingestion: There are no known hazards resulting from ingestion of this product.
Inhalation: Dust generated from this product may cause irritation of nose, throat and lungs.
Skin: Prolonged exposure to dust generated from this product may cause skin irritation in some individuals.
Eye: Exposure to dust generated from this product may cause eye irritation.

Information on Components

- 000100-97-0 *Hexamethylenetetramine*
Mild skin irritant. Ingestion may cause urinary tract irritation, skin rash, and digestive disturbances. Large oral doses can cause severe nephritis.
Exposure Routes: ingestion, skin and/or eye contact
Symptoms: Information not found.
Target Organs: respiratory system, kidney
- 001332-58-7 *Clay*
Long term inhalation may result in pneumoconiosis.
Exposure Routes: inhalation, skin and/or eye contact
Symptoms: Cough, dyspnea (breathing difficulty), black sputum, decreased pulmonary function, lung fibrosis
Target Organs: respiratory system, cardiovascular system
- 0007727-43-7 *Barytes*
Prolonged or repeated inhalation may cause baritosis, a benign pneumoconiosis, with some signs of chronic bronchial irritation.
Exposure Routes: inhalation, skin and/or eye contact
Symptoms: Cough, dyspnea (breathing difficulty), black sputum, decreased pulmonary function, lung fibrosis
Target Organs: Eyes, respiratory system
- 007782-42-5 *Natural Graphite*
May cause Pneumoconiosis.
Exposure Routes: Inhalation
Symptoms: Irritation of mucous membranes
Target Organs: Lungs
- 007440-44-0 *Synthetic Graphite*
May cause transient decreased pulmonary function.
Exposure Routes: Inhalation, Swallowing, Eyes
Symptoms: Irritation to eyes, throat, and skin
- 014808-60-7 *Quartz*
May cause silicosis.
Exposure Routes: Inhalation
Symptoms: coughing; wheezing; dyspnea; impaired pulmonary function.
Target Organs: Respiratory system, lungs.

For additional information, see Section 11: Toxicological Information

Section 4: First Aid Measures

First Aid Procedures

- Ingestion: Contact a physician.
Inhalation: Remove to fresh air. Contact a physician.
Skin: In case of irritation, remove contaminated clothing and flush affected areas with water. If irritation persists, contact a physician.
Eye: Flush with water for at least 15 minutes. If irritation persists, contact a physician.

Section 5: Fire Fighting Measures

Flash Point: Not applicable
Lower Explosion Limit: Not applicable
Upper Explosion Limit: Not applicable
Autoignition Temperature: Not determined

Material will burn in a fire.
In case of fire, use water spray, dry chemical, foam or carbon dioxide (CO₂).

Section 6: Accidental Release Measures

Avoid generating dust from this product. Clean up using methods that do not generate dust such as vacuum or wet clean up. Avoid pneumatic removal of dust. If dust is generated use a respirator.

Section 7 Handling and Storage

Handling

Handle in accordance with good industrial hygiene and safety practices. Minimize dust generation. Use adequate ventilation if dust is generated.

Inhalation: Avoid prolonged or repeated breathing of dust.
Skin: Avoid prolonged or repeated contact with skin.
Eye: Avoid eye contact.

Storage

Store in a dry area.

Section 8: Exposure Controls / Personal Protection

Exposure Controls

If user operations generate dust, use ventilation to keep exposure to airborne contaminants below applicable exposure limits.

Personal Protective Equipment

Eye / Face: Use protective safety glasses with side shields or goggles if dust is generated.
Skin: Individuals with sensitive skin should wear protective gloves and clothing that covers any skin that may come into repeated or prolonged contact with this product or any dust generated from this product.
Respiratory: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Exposure Guidelines

000100-97-0	<i>Hexamethylenetetramine</i> OSHA PEL: 15 mg/m ³ TWA, Total Dust; 5 mg/m ³ TWA, Respirable Fraction ACGIH TLV: 10 mg/m ³ TWA. Inhalable; Particulate (insoluble) Not otherwise Classified.
001332-58-7	<i>Clay</i> OSHA PEL: 15 mg/m ³ TWA, Total Dust; 5 mg/m ³ TWA, Respirable Fraction NIOSH: 10 mg/m ³ TWA, Total Dust, 5 mg/m ³ TWA, Respirable Fraction ACGIH TLV: 2 mg/m ³ TWA, Inhalable total particulate matter CANADA: 10 mg/m ³ TWA, Total Dust; 5 mg/m ³ TWA, Respirable Fraction
007727-43-7	<i>Barytes</i> OSHA PEL: 15 mg/m ³ TWA, Total Dust; 5 mg/m ³ TWA, Respirable Fraction ACGIH TLV: 10 mg/m ³ TWA. Inhalable (total) particulate matter containing no asbestos and , 1% crystalline silica. NIOSH: 10 mg/m ³ TWA, Total Dust; 5 mg/m ³ TWA, Respirable Fraction
007782-42-5	<i>Natural Graphite</i> NIOSH: 2.5 mg/m ³ TWA ACGIH TLV: 2mg/m ³ TWA, Respirable fraction of particulate matter CANADA: 2.5mg/m ³ TWA Respirable Mass; 5 mg/m ³ TWA Total Mass
007440-44-0	<i>Synthetic Graphite</i> OSHA PEL: 15 mg/m ³ TWA, Total Dust, 5mg/m ³ TWA, Respirable Fraction CANADA: 10 mg/m ³ TWA, Total Dust, 5mg/m ³ TWA Respirable Fraction
014808-60-7	<i>Quartz</i> OSHA PEL: ppm: Table Z-3, Respirable dust; 250 / % SiO ₂ + 5 millions of particles per cubic foot of air (mppcfa); % crystalline silica based on airborne samples mg/m ³ : Table Z-3, Respirable dust: 10 mg/m ³ / % SiO ₂ + 2 (determined from the fraction passing a size-selector); Total dusts: 30 mg/m ³ / % SiO ₂ + 2. NIOSH: 0.05 mg/m ³ TWA ACGIH TLV: 0.1 mg/m ³ TWA CANADA: 0.1 mg/m ³ TWA Respirable Mass; 0.3 mg/m ³ TWA Total Mass

Section 9: Physical and Chemical Properties

Appearance / Odor:	Solid; Gray to brown brake block lining with friction material odor.
pH:	Approx. 8.0
Vapor Pressure:	N/A
Vapor Density:	N/A
Boiling Point:	N/A
Melting Point:	N/A
Solubility in H ₂ O:	N/A
Specific Gravity:	1.9 - 2.1

Section 10: Stability and Reactivity

Stability: Stable
Conditions to Avoid: None Known
Materials to Avoid: None Known
Hazardous Polymerization: Will Not Occur
Decomposition Products: None Known

Section 11: Toxicological Information

Information on Product

No toxicological information was found for this product.

Information on Components

CAS #	Component	Carcinogen Status			
		IARC	NTP	OSHA	NIOSH
000100-97-0	Hexamethylenetetramine	--	--	--	--
001332-58-7	Clay	--	--	--	--
007727-43-7	Barytes	--	--	--	--
007782-42-5	Natural Graphite	--	--	--	--
007440-44-0	Synthetic Graphite	--	--	--	--
014808-60-7	Quartz	1	2	--	Listed

Section 12: Ecological Information

No ecological data has been found for this product.

Section 13: Disposal Considerations

Dispose of according to local, state / provincial, and federal requirements.

Section 14: Transport Information

Non-Regulated

Section 15: Regulatory Information

OSHA Hazard Communication Standard 29 CFR 1910.1200

This product meets the OSHA definition of an "article", therefore the OSHA Hazard Communication Standard can be considered inapplicable.

TSCA

All ingredients in this product are either naturally occurring and exempt from reporting requirements or are included in EPA's Toxic Substance Control Act Inventory of Chemical Substances.

State List Data

This product contains one or more components found on the following state lists at or above OSHA de minimis quantities:

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- Michigan Critical Materials
- Minnesota Hazardous Substances
- Pennsylvania Hazardous Substances

Section 16: Other Information

MSDS Number: 236
Revision Level: A
Revision Date: March 2003

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SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION.

D-A Lubricant

1340 W. 29th St.

Indianapolis, IN 46208

317/923-5321

CHEMICAL EMERGENCY HOTLINE 800 899-9004

PRODUCT NAME: **MAGNAPLEX 1,1 1/2,2**

PRODUCT DESCRIPTION: MAGNAPLEX 1,1 1/2,2

CHEMICAL FAMILY: LUBRICATING GREASE

EFFECTIVE DATE: 03/28/02

SUPERCEDES DATE: 02/07/02

Dear Customer:

In compliance with the Superfund Amendments and Reauthorization Act (SARA Title III, Section 313), Federal Hazard Communications Regulations (WHMIS and OSHA 29 CFR 1910.1200) and in the interest of informed use of our product, we are providing you with this Material Safety Data Sheet (MSDS).

This MSDS will be updated regularly to reflect the most recent information in our possession. Please ensure that obsolete MSDS sheets in your files for this part number are discarded.

We THANK YOU for your continued patronage and look forward to providing you with additional quality products and services.

SECTION 2 - HAZARDOUS INGREDIENTS

COMPONENT	CAS #	% WT	PEL	TLV	STEL	UNITS	LC50, PPM	LD50, MG/KG
PETROLEUM OILS								
	64742-65-0	60-65	5	5	10	MG/M3		RATI 13000 RABA 2000
	64741-95-3	20-25	5	5	10	MG/M3		RATI 13000 RABA 2000
ANTIMONY DIALKYLDITHIOPHOSPHATE								
	15874-57-9	0.2-2.0						
GRAPHITE								
	07782-42-5	1-5	2.5	2.0		MG/M3		
MOLYBDENUM DISULFIDE								
	01317-33-5	1-5	5	5		MG/M3		
ZINC DIORGANO-DITHIOPHOSPHATE								
	68649-42-3	1-5						RATI >5000 RABA >2000 SARA Rep.

SECTION 3 - PHYSICAL DATA

Boiling Pt Deg F/C: >500/>260	Specific Gravity: 0.86 TO .92
Vapor Pressure (MM HG): NIL	% Volatile Volume: NIL
Vapor Density (Air=1): N/A	Evaporation Rate: <0.1
Solubility in Water: NEGLIGIBLE	Water/Oil Dist Coeff: 0
Appearance and Odor: Gray grease with petroleum odor	
Physical State: SEMI SOLID	PH: N/A
Freeze Pt Deg F/C: N/A	Threshold Odor, PPM: N/A
Other: N/A	VOC: Lbs/Gal = N/A
Grams/Liter = N/A	Grams VOC/Gram Solid = N/A
% VOC: N/A	

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Classification: Combustible at high temp	NFPA Rating: 1.1.0
Combustion products: CO, CO2, Smoke, Sulfur, Nitrogen, Phosphorous, Zinc, Antimony, and Molybdenum Compounds.	
Flash Point Deg F/C: >370/>188	LEL %: N/A % UEL %: N/A %

PRODUCT NAME: **MAGNAPLEX 1,1 1/2,2**
 EFFECTIVE DATE: 03/28/02 SUPERCEDES DATE: 02/07/02

Extinguishing Media: Water Fog, Foam, Dry Chemical, CO2, Sand, or Earth.

UN/NA/PIN#: N/A

Special Fire Fighting Procedures

Firefighters should wear self-contained breathing equipment. Treat as a Class B fire. Use water to cool threatened containers.

Auto Ign. Temp Deg F/C: >500/>260

Unusual fire and explosion hazards: N/A

Explosion Power: N/A

Impact Sensitive: No

Burning Rate: Low

Static Sensitive: No

SECTION 5 - HEALTH HAZARD DATA

Product Guide: TLV see Section 2

STEL: see Section 2

Routes of Entry: Skin contact, Eye, Inhalation, Ingestion

Effects of Overexposure:

Acute; may cause respiratory system, skin, and/or eye irritation.

Ingestion may cause nausea, cramps, diarrhea, and other gastrointestinal disorders.

Chronic; excess mist may cause respiratory problems.

Excess skin contact may cause dryness and/or sensitization.

Excess inhalation and/or ingestion may be harmful to respiration system and heart.

Any suspected carcinogen = or > 0.1%?: NO

Emergency and First Aid Procedures

Eye: Immediately flush with plenty of water for 15 minutes and call a physician.

Inhalation: If affected, remove to fresh air, administer oxygen and call a physician.

Skin: Wash thoroughly with plenty of water and soap.

Ingestion: Seek a physician immediately, show MSDS or Label; Do Not Induce vomiting.

Wash soiled clothing before wearing again.

SECTION 6 - REACTIVITY DATA

Stable: YES

Conditions to Avoid: N/A

Incompatibility (Materials to avoid): YES, strong oxidizing agents

Hazardous Decomposition Products: YES, combustion products, see Section 4

Hazardous Polymerization: NO

Conditions to Avoid: N/A

SECTION 7 - SPILL OR LEAK PROCEDURES

Listed in SARA Title III, #302: NO #304, Cercla: NO #313: YES

Steps to be taken in case material is released or spilled:

Eliminate source if safe to do so. Prevent from entering waterways and drains. Wear suitable personal protective equipment. Dike and absorb with inert material and transfer to a sealed approved container for disposal.

Report Quantity, Lb: N/A

Kg: N/A

TPQ, Lb: N/A

Regulations: SARA

Other: N/A

Hazard Waste: NO

NO.:

Disposal Method: In accordance with Federal, State, and Local Regulations.

*** SARA Waste Characteristic: N/A

*** EPA Hazardous Waste Number: N/A

SECTION 8 - SAFE HANDLING AND PROTECTION INFORMATION

Respiratory Protection: Use only in well ventilated areas.

Ventilation - Local: Recommended

Special: Avoid Heat/Flame

Mechanical: Required

Other: N/A

Protective Gloves: Oil/Solvent resistant Eye Protection: Safety Glasses/Goggles

Other Protective Equipment:

PRODUCT NAME: **MAGNAPLEX 1,1 1/2,2**
EFFECTIVE DATE: 03/28/02 SUPERCEDES DATE: 02/07/02

Oil/Solvent resistant clothing and footwear. If ventilation is inadequate, wear approved respiratory equipment.

Estimated LD50, Mg/Kg: YES Dermal, Rabbit 2000, Oral Rat 13000

Estimated LC50, PPM: NO

Sensitization: NO

Irritant: NO

Synergistic Agents: NO

SECTION 9 - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing:

Use only in well ventilated areas. Avoid prolonged or repeated breathing of fumes, vapor, or mist. Avoid contact with eyes and skin. DO NOT take internally. Wash thoroughly after using. In case of accident or illness, consult a physician immediately; show label and/or MSDS.

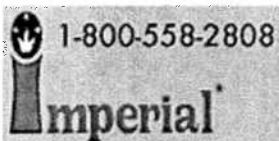
Keep out of reach of children.

Always read and follow directions on product label.

Other precautions:

More technical information (MSDS) available upon request. For professional industrial use only. Good personal hygiene is important. Empty containers retain residue which can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other ignition sources; they may explode and cause injury or death.

The information and recommendations provided herein are believed to be accurate as of the date hereof. However, such information and recommendations are provided without warranty of any kind and D-A Lubricant disclaims any and all liability or legal responsibility for use or reliance upon same.



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INVOICE#: E41624

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INVOICED: 7/31/2006

SHIP ATTN: MIKE MASSEY
TO: A & R TRANSPORT INC
2513 HIGHWAY 20
DECATUR AL 35601-7519

BILL A & R TRANSPORT INC
TO: PO BOX 848
MORRIS IL 60450-0848

PO: GP0020232

LOCATION:

PAY TERMS: 1/2% 10 DAY NET30

DETAILS:

COMMENTS:

The following items were shipped 7/31/2006 on ship #0146NJ from DALLAS, TX via UPS.

Item	Description	Pkg Qty	Quantity Ordered	Quantity Shipped	Boxes Shipped	Purch Amount
16150	3/8 X 1 1/2 USS GR 8 - Lot# 523606	100	200	200	2	\$20.74
40150	NUT 1/4-20 USS GR 8 - Lot# n002-5a0607a18	200	200	200	1	\$6.44
40154	NUT 3/8-16 USS GR 8 - Lot# a401-5c0201a71	100	100	100	1	\$6.66
40158	NUT 1/2-13 USS GR 8 - Lot# a403-5c0801a61	50	50	50	1	\$7.69
57114	LOCKNUT 1/2-13 USS GR C - Lot# 9312014	50	50	50	1	\$7.09
70732	COTTER PIN 5/32 X 1-1/2	125	125	125	1	\$6.55
70739	COTTER PIN 3/16 X 1-1/2	125	125	125	1	\$9.10
71160	SEALED YELLOW 1/4-5/16	50	50	50	1	\$22.56
71592	CUT-OFF WHEEL 3X1/16X3/8	5	25	25	5	\$28.75
71892	22-18 SEALED RED BUTT	50	100	100	2	\$33.01
71893	16-14 SEALED BLUE BUTT	50	200	200	4	\$69.40
71894	12-10 SEALED YELLOW BUTT	25	100	100	4	\$48.63
73218	IMPERIALOK R 2"MED SURFDSC MRN	10	20	20	2	\$20.00

73219	IMPERIALOK R 2"CRS SURFDSC BRW - MSDS SHEET INCLUDED (REV 07/05/06)	10	20	20	2	\$20.00
76013	USS FLATWASHER 3/8 GR 8	250	250	250	1	\$18.00
76014	USS FLATWASHER 7/16 GR 8	250	250	250	1	\$26.30
76172	LOCKWASHER 3/8 ALLOY	250	250	250	1	\$10.40
90313	PIPE PLUG HX HD 1/4	30	30	30	1	\$7.84
90314	PIPE PLUG HX HD 3/8	15	15	15	1	\$8.10
90315	PIPE PLUG HX HD 1/2	10	10	10	1	\$7.80
90321	PIPE BUSHING 3/8X1/4	20	20	20	1	\$7.88
90323	PIPE BUSHING 1/2X1/4	10	20	20	2	\$14.60
90330	PIPE COUPLING 1/8	20	20	20	1	\$6.62
90331	PIPE COUPLING 1/4	20	20	20	1	\$13.40
90332	PIPE COUPLING 3/8	10	10	10	1	\$9.70
90351	PIPE CLOSE NIPL 1/4	20	20	20	1	\$6.47
90352	PIPE CLOSE NIPL 3/8	10	10	10	1	\$5.60
90662	A/B UNION 1/2	10	10	10	1	\$29.40
98102	BLK BUSH 3/8X1/4	10	10	10	1	\$8.00

Freight/Shipping Information

Shipping Distribution Center	Shipped Date	Ship Description	Weight	Amount	Tracking Number
DALLAS, TX	7/31/2006	UPS	48	\$15.35	1Z88W5710300266409 Courtesy of UPS

Please note, these are the individual freight records for each package shipped. The freight charges indicated here are reflected in the additional charges below and are not duplicated in your invoice total.

Additional Charges

Description	Amount
9.00 % SALES TAX	\$43.81
SHIPPING CHARGE	\$15.35
SHIPPING ALLOWANCE	(\$15.35)

FOB ORIGIN.

THANK YOU FOR YOUR ORDER

Invoice total
\$530.54

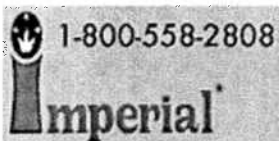
Questions regarding your order should be directed to JOHN BIWER, at (800)558-2808 or via email at biwer@imperialsupplies.com.

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INVOICE#: DC8880

INVOICED: 7/31/2006

SHIP ATTN: MIKE MASSEY
TO: A & R TRANSPORT INC
2513 HIGHWAY 20
DECATUR AL 35601-7519

BILL A & R TRANSPORT INC
TO: PO BOX 848
MORRIS IL 60450-0848

PO: GP0020232

LOCATION:

PAY TERMS: 1/2% 10 DAY NET30

DETAILS:

COMMENTS:

The following items were shipped 7/31/2006 on ship #0146NJ from DALLAS, TX via UPS.

Item	Description	Pkg Qty	Quantity Ordered	Quantity Shipped	Boxes Shipped	Purch Amount
16150	3/8 X 1 1/2 USS GR 8 - Lot# 523606	100	200	200	2	\$20.74
40150	NUT 1/4-20 USS GR 8 - Lot# n002-5a0607a18	200	200	200	1	\$6.44
40154	NUT 3/8-16 USS GR 8 - Lot# a401-5c0201a71	100	100	100	1	\$6.66
40158	NUT 1/2-13 USS GR 8 - Lot# a403-5c0801a61	50	50	50	1	\$7.69
57114	LOCKNUT 1/2-13 USS GR C - Lot# 9312014	50	50	50	1	\$7.09
70732	COTTER PIN 5/32 X 1-1/2	125	125	125	1	\$6.55
70739	COTTER PIN 3/16 X 1-1/2	125	125	125	1	\$9.10
71160	SEALED YELLOW 1/4-5/16	50	50	50	1	\$22.56
71592	CUT-OFF WHEEL 3X1/16X3/8	5	25	25	5	\$28.75
71892	22-18 SEALED RED BUTT	50	100	100	2	\$33.01
71893	16-14 SEALED BLUE BUTT	50	200	200	4	\$69.40
71894	12-10 SEALED YELLOW BUTT	25	100	100	4	\$48.63
73218	IMPERIALOK R 2"MED SURFDSC MRN	10	20	20	2	\$20.00

73219	IMPERIALOK R 2"CRS SURFDSC BRW - MSDS SHEET INCLUDED (REV 07/05/06)	10	20	20	2	\$20.00
76013	USS FLATWASHER 3/8 GR 8	250	250	250	1	\$18.00
76014	USS FLATWASHER 7/16 GR 8	250	250	250	1	\$26.30
76172	LOCKWASHER 3/8 ALLOY	250	250	250	1	\$10.40
90313	PIPE PLUG HX HD 1/4	30	30	30	1	\$7.84
90314	PIPE PLUG HX HD 3/8	15	15	15	1	\$8.10
90315	PIPE PLUG HX HD 1/2	10	10	10	1	\$7.80
90321	PIPE BUSHING 3/8X1/4	20	20	20	1	\$7.88
90323	PIPE BUSHING 1/2X1/4	10	20	20	2	\$14.60
90330	PIPE COUPLING 1/8	20	20	20	1	\$6.62
90331	PIPE COUPLING 1/4	20	20	20	1	\$13.40
90332	PIPE COUPLING 3/8	10	10	10	1	\$9.70
90351	PIPE CLOSE NIPL 1/4	20	20	20	1	\$6.47
90352	PIPE CLOSE NIPL 3/8	10	10	10	1	\$5.60
90662	A/B UNION 1/2	10	10	10	1	\$29.40
98102	BLK BUSH 3/8X1/4	10	10	10	1	\$8.00

Freight/Shipping Information

Shipping Distribution Center	Shipped Date	Ship Description	Weight	Amount	Tracking Number
DALLAS, TX	7/31/2006	UPS	48	\$15.35	1Z88W5710300266409 Courtesy of UPS

Please note, these are the individual freight records for each package shipped. The freight charges indicated here are reflected in the additional charges below and are not duplicated in your invoice total.

Additional Charges

Description	Amount
9.00 % SALES TAX	\$43.81
SHIPPING CHARGE	\$15.35
SHIPPING ALLOWANCE	(\$15.35)

FOB ORIGIN.

THANK YOU FOR YOUR ORDER

Invoice total
\$530.54

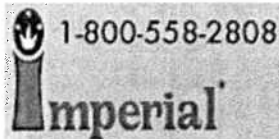
Questions regarding your order should be directed to JOHN BIWER, at (800)558-2808 or via email at biwer@imperialsupplies.com.

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9502: Threadlocker Hvy Dty Red 35ML
9502-1: Threadlocker Hvy Dty Red 35ML
MSDS Last updated: 09/30/2005

IMPERIAL SUPPLIES LLC
789 ARMED FORCES DRIVE
GREEN BAY, WI. 54304

INFORMATION #: 800-558-2808
EMERGENCY #: 800-255-3924 CHEM-TEL

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name: IMPERIAL 9502 & 9502-1 HEAVY DUTY THREAD LOCKER
PERMANENT 35 ML
Item No: 12413
Product Type: Anaerobic

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OS
Methacrylate Monomer 25852-47-5	60-70	Not Listed	Not
Polyester Resin Mixture	20-30	Not Listed	
Saccharin 81-07-2 nuisance dust	1-10	10mg/m3	
-Dimethyl benzyl Hydro peroxide 80-15-9	1-10	Not Listed	No

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye and skin irritation. At elevated temperatures cause irritation of the respiratory tract. Irritates mucous membr. Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea. May cause central nervous system (CNS) depression. May cause skin sensitization.

Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.
Signs and Symptoms of Exposure; Repeated skin contact may cause allergic reactions. Skin redness. Ingestion may cause nausea and vomiting. Inhalation overexposure may cause irritation, coughing and flu-li symptoms. May cause pain, redness or swelling of the eyes and excessive blinking and tear production.

Ingredients	Percent	NTP:	ACGIH Carcinogens
Saccharin	1-10	Delisted April 2000	

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81-07-2

Page 517,

Medical Conditions Recognized as Preexisting skin disorders.
Being Aggravated by Exposure;

4. FIRST AID MEASURES

Ingestion: If swallowed, seek medical advice immediately and show the container or label.
Inhalation: This product has a very low vapor pressure. Vapor inhalation under ambient conditions is normally not a problem.
Skin Contact: Wash off immediately with soap and plenty of water remove contaminated clothes and shoes if skin irritation persists, call a physician.
Eye Contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

5. FIRE FIGHTING MEASURES

Flash Point (F/C): More than 200 degrees C. Method; PMCC
Recommended Extinguishing Media; Water fog, carbon dioxide, foam, dry chemical
Special Fire-Fighting Procedures; Firefighters should wear self-contained breathing apparatus.
Hazardous Products Formed by Fire
or Thermal Decomposition: Irritating vapors.
Unusual Fire/Explosion Hazards: Closed containers may rupture or explode exposed to extreme heat.

Lower Explosive Limit: Not determined
Upper Explosive Limit: Not determined.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store below 100 degrees F.
Handling: Avoid prolonged skin contact. Keep away from eyes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses.
Skin: Neoprene or nitrile gloves recommended.
Ventilation: Provide adequate ventilation.
Respiratory Protection; In case of insufficient ventilation, wear suitable respiratory equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES;

Appearance: Red liquid.
Odor: MILD
Boiling Point (F): More than 150 degrees C.
pH: Does not apply
Solubility in Water: Insoluble
Specific Gravity: >1.0
VOC Content (Wt.%): Not determined
Vapor Pressure: Not determined
Vapor density (Air=1): Heavier than air

Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions.
Hazardous Polymerization; WILL NOT OCCUR
Incompatibilities: Strong oxidizers, free radical initiators, inert ga
Conditions to Avoid: Heat
Hazardous Products Formed by Fire
Or Thermal Decomposition; Irritating vapors

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal; Disposal should be made in accordance wit
federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material.

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Unrestricted
Hazard Class: NONE
UN/ID Number; None
Marine Pollutant: None

IATA

Proper Shipping Name; Not regulated
Class of Division: None
UN/NA Number; None

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number; None

15. REGULATORY INFORMATION

SARA 313 Chemicals; The following component(s) is listed as a SARA Sectio
Toxic Chemical.

SARA 313 Information
DIMETHYL BENZYL HYDRO PEROXIDE

CALIFORNIA PROP 65;
No California Prop 65 chemicals are known to be present.

TSCA Inventory Status;
Listed on Inventory: YES All components of this product are listed (or ex
on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: Health 2, Flammability 1, Reactivity 1
Estimated HMIS Classification: Health 2, Flammability 1, Physical Hazard 1
NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Denise Boyd, Health and Safety Manager Revision Date:
Company: Permatex Inc. 10 Columbus Blvd. Hartford CT. USA Re:
06106
Telephone Number: 1-87-Permatex (877) 376-2839

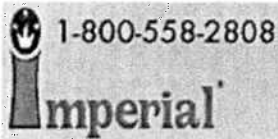
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- [71721: Seal-A-Splice 3/16x2-1/2](#)
 - [71726: Seal-A-Splice 1x2-1/2](#)
 - [71728: Seal-A-Splice 3/16x2 Feet](#)
 - [71729: Seal-A-Splice 1/4x2 Feet](#)
 - [71730: Seal-A-Splice 3/8x2 Feet](#)
 - [71731: Seal-A-Splice 1/2x2 Feet](#)
 - [71732: Seal-A-Splice 3/4x2 Feet](#)
 - [71733: Seal-A-Splice 1x2 Feet](#)
 - [71734: Seal-A-Splice 1/8X2 Feet](#)
 - [71739: Seal-A-Splice II 1x2-1/2 Red](#)
 - [71739-1: Seal-A-Splice II 1X12 Red](#)
 - [71740: Seal-A-Splice II 1x2-1/2 Black](#)
 - [71740-1: Seal-A-Splice II 1X12 Black](#)
- MSDS Last updated: 07/25/2003*

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MATERIAL SAFETY DATA SHEET

PART NO: 71721-71726
71728-71740-1

PRODUCT NAME: THERMOFIT HEAT-SHRINKABLE POLYMERIC PRODUCTS

NFPA RATING:	HMS RATING:
HEALTH:	HEALTH:
FLAMMABILITY:	FLAMMABILITY:
REACTIVITY:	REACTIVITY:
SPECIAL:	PERSONAL PROT:

*****SECTION I*****

MANUFACTURER'S NAME: IMPERIAL SUPPLIES LLC
 MANUFACTURER'S ADDRESS: 789 PACKER DRIVE
 CITY, STATE, ZIP: GREEN BAY, WI 54307
 INFORMATION TELEPHONE NUMBER: 800-558-2808
 EMERGENCY TELEPHONE NUMBER: 800-255-3924 (CHEM-TEL, INC.)
 DATE PREPARED:

SECTION II: HAZARDOUS INGREDIENTS/IDENTITY INFO

HAZARDOUS COMPONENTS:

INGREDIENTS	CAS#	%	OSHA PEL	ACGIH TLV
HEAT-SHRINKABLE POLYMERIC PRODUCTS ARE NOT HAZARDOUS DURING PROPER INSTALLATION BUT MAY EMIT HAZARDOUS THERMAL DECOMPOSITION AND COMBUSTION BYPRODUCTS IF OVERHEATED TO DEGRADATION. SEE "THERMAL DEGRADATION AND COMBUSTION BYPRODUCT" SECTION OF THIS MSDS FOR MORE SPECIFIC INFORMATION. POLYMER MATERIALS INCLUDE POLYETHYLENE AND OLEFIN COPOLYMERS, FLUOROPOLYM CHLOROPOLYMERS, POLYAMIDES, POLYESTERS, AND SILICONES. HEAT-SHRINKABLE PRODUCTS MAY BE COATED WITH OR USED IN CONJUNCTION WITH ADHESIVES/MASTICS WHICH ARE BASED ON OLEFIN COPOLYMERS OR POLYAMIDES.				

PRODUCT APPLICATIONS

TYPICAL USES OF HEAT-SHRINKABLE POLYMERIC PRODUCTS INCLUDE PRIMARY ELECTRICAL INSULATION, EMI/RFI SHIELDING, CABLE JACKETING AND REPAIR, STRAIN RELIEF, COMPONENT ENCAPSULATION, WATERPROOFING, PACKAGING, ENVIRONMENTAL/MECHANICAL PROTECTION, AND CABLE JOINING, SPLICING, AND TERMINATION IN COMMERCIAL AND MILITARY/AEROSPACE ELECTRONIC APPLICATIONS.

PHYSICAL/CHEMICAL CHARACTERISTICS

VAPOR PRESSURE (MMHG) @ 20C: NOT APPLICABLE
APPEARANCE AND ODOR: PLASTIC TUBING AND MOLDED PARTS IN A VARIETY OF SHAPES AND COLORS. NO ODOR.

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): NOT APPLICABLE
FLAMMABLE LIMITS:
LEL: N/A
UEL: N/A

EXTINGUISHING MEDIA: CARBON DIOXIDE, WATER, DRY CHEMICAL OR FOAM.

SPECIAL FIRE FIGHTING PROCEDURES: FIREFIGHTERS SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS IN ENCLOSED AREAS.

UNUSUAL FIRE AND EXPLOSION HAZARDS: TOXIC FUMES MAY EVOLVE IN A FIRE.

SECTION V: REACTIVITY DATA

STABILITY: STABLE
CONDITIONS TO AVOID: AVOID OVERHEATING OF PRODUCT

INCOMPATIBILITY (MATERIALS TO AVOID):

HAZARDOUS DECOMPOSITION OR BY PRODUCTS:

HAZARDOUS POLYMERIZATION:
CONDITIONS TO AVOID:

SECTION VI: HEALTH HAZARD DATA

ROUTES OF ENTRY:

HEALTH HAZARDS (ACUTE AND CHRONIC):
IN COMMON WITH MOST ORGANIC MATERIALS, DEGRADATION AND COMBUSTION BYPRODUCTS MAY BE TOXIC AND SHOULD NOT BE INHALED. (SEE THERMAL DEGRADATION AND COMBUSTION BYPRODUCTS SECTION FOR MORE SPECIFIC INFORMATION) OVERHEATING OF PRODUCT TO CHARRING OR BURNING WILL PRODUCE FUMES THAT MAY CAUSE EYE, SKIN, NOSE AND THROAT IRRITATION.

TOXICOLOGICAL INFORMATION/EXPOSURE LIMITS: NONE ESTABLISHED FOR POLYMER MIXTURES.

SUSPECTED CANCER AGENT: NO INGREDIENT OF THESE PRODUCTS THAT IS PRESENT AT CONCENTRATIONS EQUAL TO OR GREATER THAN 0.1% OF THE PRODUCT IS LISTED BY OSHA, NTP, OR IARC AS A SUSPECT CARCINOGEN.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: IF EYE IRRITATION OCCURS, FLUSH WITH WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION.

SKIN: IF MOLTEN ADHESIVE/MASTIC CONTACTS SKIN, COOL IMMEDIATELY IN WATER. NOT ATTEMPT TO REMOVE MATERIAL FROM THE SKIN - TREAT AS A BURN AND SEEK MEDICAL ATTENTION.

INGESTION: NOT A NORMAL ROUTE OF EXPOSURE. IF SWALLOWED, SEEK MEDICAL ATTENTION.

INHALATION: REMOVE TO FRESH AIR. SEEK MEDICAL ATTENTION IF ANY BREATHING PROBLEM DEVELOPS.

SECTION VII: PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

WASTE DISPOSAL METHOD: ALL PRODUCTS ARE CLASSIFIED AS NON-HAZARDOUS WASTE SHOULD BE BURIED OR INCINERATED AT APPROVED SITES. IF THERE ARE LOCAL REGULATIONS COVERING THE CONTROLLED INCINERATION OF HALOGENATED MATERIALS THEN ALL FLAME-RETARDED PRODUCTS, WITH THE EXCEPTION OF ZEROHAL TM, PRODUCT WILL BE SUBJECT TO SUCH REGULATIONS. REFER TO THE PRODUCT LITERATURE FOR IDENTIFICATION OF FLAME-RETARDED PRODUCTS.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
HEAT RESISTANT GLOVES ARE REQUIRED IF HOT PRODUCTS ARE HANDLED AFTER INSTALLATION.

SPECIAL PRECAUTIONS: AVOID HEATING PRODUCTS BEYOND TEMPERATURES REQUIRED NORMAL INSTALLATION. SEE INSTALLATION INSTRUCTIONS FOR PROPER INSTALLATION PROCEDURES. IF PRODUCTS CHAR OR BURN, IMMEDIATELY STOP HEATING. AVOID INH. ANY FUMES WHICH EVOLVE UNDER SUCH CIRCUMSTANCES. ALLOW ANY FUMES TO DISPERSE AND VENTILATE BEFORE CONTINUING WORK IN THE AREA.

TRANSPORTATION: THESE PRODUCTS ARE NON-HAZARDOUS UNDER DEPARTMENT OF TRANSPORTATION REGULATIONS 49, CFR SECTION 171.8, IATA, IMD, AND AFR 71-4 BECAUSE THERE ARE NO APPLICABLE SHIPPING REGULATIONS FOR THESE PRODUCTS, LABELS ARE NOT REQUIRED ON THE OUTSIDE SHIPPING CONTAINER FOR THESE PRODUCTS AND ALL PRODUCTS MAY BE SHIPPED THROUGH THE U.S. POSTAL SERVICES.

INSTALLATION: FOLLOW APPROPRIATE INSTALLATION INSTRUCTIONS AND APPLICATION GUIDES TO ENSURE THAT INSTALLATION IS PERFORMED PROPERLY. ENSURE THAT ANY LOCAL REQUIREMENTS/LEGISLATION CONCERNING THE USE OF HAND-HELD ELECTRICAL EQUIPMENT ARE OBSERVED. WHEN USING IR (INFRARED) HEATING DEVICES, OBSERVE SPECIFIC INSTRUCTIONS. DO NOT TOUCH HOT SURFACES IN INSTALLATION EQUIPMENT.

SECTION VIII: CONTROL MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE):

VENTILATION: IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE PRACTICE, ENSURE VENTILATION ADEQUATE TO CONTROL EXPOSURES BELOW STATE AND FEDERAL PERMISSIBLE LIMITS (PELS) DURING INSTALLATION.

PROTECTIVE CLOTHING AND EQUIPMENT: TO BE BASED ON THE OPERATION PERFORMED FOLLOWING OSHA, ANSI, OR NIOSH GUIDELINES. IF THERE IS A DANGER OF MOLTEN ADHESIVE OR MASTIC CONTACTING THE SKIN OR EYES, USE EYE/FACE PROTECTION AND HEAT RESISTANT GLOVES. IF THERE IS NECESSARY TO HANDLE GROSSLY OVERHEATED FIRE-DAMAGED PRODUCTS, WEAR IMPERVIOUS GLOVES TO PREVENT POSSIBLE CONTACT POTENTIALLY CORROSIVE INORGANIC ACID RESIDUES. IF INSTALLATION OCCURS IN A CONFINED, UNVENTILATED AREA, NIOSH/MSHA-APPROVED RESPIRATORS ARE RECOMMENDED.

WORK/HYGIENIC PRACTICES:

SECTION IX: SHIPPING REGULATIONS

UN/NA NUMBER:
DOT HAZARD CLASS:
SHIPPING LABEL:
SHIPPING NAME:

SECTION X: SPECIAL COMMENTS

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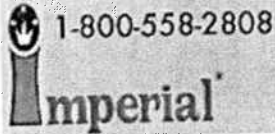
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6542: Gasket Remover 14-3/4 Oz Net (DISCONTINUED ITEM)
6542-1: Gasket Remover 14-3/4 Oz Net (DISCONTINUED ITEM)
MSDS Last updated: 09/11/2003

MATERIAL SAFETY DATA SHEET

PART NO: 6542 & 6542-1

PRODUCT NAME: GASKET AND PAINT REMOVER

HMIS CODES

Health 3*
Flammability 4
Reactivity 0

*****SECTION I*****

MANUFACTURER'S NAME: IMPERIAL SUPPLIES LLC
789 PACKER DRIVE
GREEN BAY, WI. 54304
800-558-2808
800-255-3924 (CHEM-TEL, INC.)

DATE CHANGED: 2/21/03

DOT SHIPPING--CONSUMER COMMODITY ORM-D

SECTION 2 -- COMPOSITION / INFORMATION ON INGREDIENTS

Table with 5 columns: % by WT, CAS No., INGREDIENTS, UNITS, VAPOR PRESSU. Rows include Propane, Butane, Mineral Spirits., Methylene Chloride, 2-Propanol, and Ethanolamine.

ACGIH	TLV	3 ppm
ACGIH	TLV	6 ppm
OSHA	PEL	3 ppm
OSHA	PEL	6 ppm

SECTION 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for use, ventilation, and personal protective equipment.

EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and upper respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness, possibly death. Overexposure to Methylene Chloride can raise the level of carbon monoxide in the blood.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists. Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Cardiovascular problems may be aggravated by overexposure to Methylene Chloride.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

SECTION 4 -- FIRST AID MEASURES

If INHALED;

If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on SKIN;

Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.

If in EYES;

Flush eyes with large amounts of water for 15 minutes. Get medical attention.

If SWALLOWED;

Do not induce vomiting. Get medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL
Propellant < 0 F	1.0	12.7

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

SECTION 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area. Remove with inert absorbent.

SECTION 7 -- HANDLING AND STORAGE

STORAGE CATEGORY

NFPA 30B Level 1 Aerosol

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep away from heat, sparks, and open flame. Vapors will accumulate and may ignite explosively. During use and until all vapors are gone: area ventilated - Do not smoke - Extinguish all flames, pilot lights, heater - Turn off stoves, electric tools and appliances, and any other sources of ignition. Consult NFPA Code. Use approved Bonding and Grounding procedures.

Contents under pressure. Do not puncture, incinerate, or expose to temperature about 120 F. Heat from sunlight, radiators, stoves, hot water and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

SECTION 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

Before initial use, consult OSHA's Standard for Occupational Exposure to Methylene Chloride (29 CFR 1910.1052). Use only with adequate ventilation. Avoid contact with skin and eyes. Avoid breathing vapor and spray mist. Wash hands after using.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits to OSHA Standard 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

An air supplied respirator must be worn, unless air monitoring demonstrates vapor/mist concentrations are below permissible limits. Follow respirator manufacturer's directions for respirator use.

PROTECTIVE GLOVES

For intermittent exposure, wear VITON or nitrile gloves recommended by manufacturer for protection against materials in Section 2. For immersion wear PVA gloves recommended by glove manufacturer.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	8.22 lb / gal	984 g / l
SPECIFIC GRAVITY	0.99	
BOILING POINT	<0 - 395 F	< - 18 - 201 C
MELTING POINT	Not Available	
VOLATILE VOLUME	98 %	
EVAPORATION RATE	Faster than ether	

VAPOR DENSITY Heavier than air
 SOLUBILITY IN WATER N.A.
 VOLATILE ORGANIC COMPOUNDS (VOC Theoretical)
 Volatile Weight 28.15 % Less Federally Exempt Solvents

SECTION 10 - STABILITY AND REACTIVITY

STABILITY - Stable

CONDITIONS TO AVOID - None known.

INCOMPATIBILITY - None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Hydrogen Chloride

HAZARDOUS POLYMERIZATION - Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS

Methylene Chloride is listed by IARC, NTP, and OSHA. Laboratory animal exposed to high levels of Methylene Chloride in lifetime studies have developed cancer. There is no evidence to date that Methylene Chloride cancer in humans.

Prolonged overexposure to solvent ingredients in Section 2 may cause effects to the liver, urinary, cardiovascular and nervous systems. Reports have associated repeated and prolonged overexposure to solvent permanent brain and nervous system damage.

TOXICOLOGY DATA

CAS No.	Ingredient Name			
74-98-6	Propane			
	LC50 RAT	4HR		Not Available
	LD50 RAT			Not Available
106-97-8	Butane			
	LC50 RAT	4HR		Not Available
	LD50 RAT			Not Available
64742-88-7	Mineral Spirits.			
	LC50 RAT	4HR		Not Available
	LD50 RAT			Not Available
75-09-2	Methylene Chloride.			
	LC50 RAT	4HR		Not Available
	LD50 RAT			1600 mg / kg
67-63-0	2-Propanol			
	LC50 RAT	4HR		Not Available
	LD50 RAT			5045 mg / kg
141-43-5	Ethanolamine.			
	LC50 RAT	4HR		Not Available
	LD50 RAT			2140 mg / kg

SECTION 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION - No data available.

SECTION 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers. Do not incinerate. Depressurize container. Do in accordance with Federal, State, and Local regulations regarding pollution.

SECTION 14 - TRANSPORT INFORMATION

No data available.

SECTION 15 - REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL / COMPOUND	% by WT	% Element
75-09-2	Methylene Chloride	67	

CALIFORNIA PROPOSITION 65

WARNING; This product contains a chemical known to the State of California to cause cancer.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA inventory.

SECTION 16 -- OTHER INFORMATION

This product has been classified in accordance with the hazard criteria in the CPR and the MSDS contains all of the information required by the C

The above information pertains to this product as currently formulated and is based on the information available at this time. Addition of other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

The information contained in this MSDS was obtained from current and reliable sources, and the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of Imperial Supplies LLC, Imperial will not be responsible for loss, injury, or expense out of the products improper use. No warranty, expressed or inferred, regarding the product described in this MSDS shall be created or inferred by any statement in this MSDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this MSDS. The user is responsible for full compliance.

For more product information by email, [click here](#)

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1. Chemical product and company identification

Product name CASTROL PYROPLEX PROTECTION ES
 (NLGI 1 & 2)
MSDS# 0000001909
Historic MSDS#: None.
Code 0000001909
Product use Lubricant.
 For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Supplier BP Lubricants USA Inc.
 9300 Pulaski Highway
 Baltimore, Maryland 21220-2495

EMERGENCY HEALTH INFORMATION: 1 (800) 447-8735
 Outside the US: +1 703-527-3887 (CHEMTREC)
EMERGENCY SPILL INFORMATION: 1 (800) 424-9300 CHEMTREC (USA)
OTHER PRODUCT INFORMATION 1 (866) 4 BP - MSDS
 (866-427-6737 Toll Free - North America)
 email: bpcares@bp.com

2. Composition/information on ingredients

Ingredient name	CAS #	% by weight	Exposure limits
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	20 - 90	ACGIH (United States). TWA: 5 mg/m ³ 8 hour(s). Form: OIL MIST, MINERAL STEL: 10 mg/m ³ 15 minute(s). Form: OIL MIST, MINERAL OSHA (United States). PEL: 5 mg/m ³ 8 hour(s). Form: OIL MIST, MINERAL
LITHIUM COMPLEX SOAP THICKENER		1 - 20	None assigned.
Proprietary performance additives.		15 - 25	None assigned.
SYNTHETIC ESTER		5 - 15	None assigned.

3. Hazards identification

Physical state Solid paste.

Color Purple.

Emergency overview

This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria.

Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. Avoid contact with skin and clothing. Wash thoroughly after handling.

Routes of entry Skin contact. Eye contact. Inhalation. Ingestion.

Potential Health Effects

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Eyes	No significant health hazards identified.
Skin	Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. High pressure skin injections are serious medical emergencies. Injury will not appear serious at first; within a few hours, tissue will become swollen, discolored and extremely painful.
Inhalation	No significant health hazards identified.
Ingestion	Causes gastrointestinal irritation and diarrhea.
Medical conditions aggravated by overexposure	None identified.

See toxicological Information (section 11)

4. First aid measures

Eye Contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact	Immediately wash exposed skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops. Accidental high pressure injection through the skin requires immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.

5. Fire-fighting measures

Flammability of the product	May be combustible at high temperature.
Flash point	204.44 °C (Open cup) Cleveland.
Products of combustion	carbon oxides (CO, CO ₂)
Unusual fire/explosion hazards	Slightly flammable to flammable in presence of open flames and sparks. This material is not explosive as defined by established regulatory criteria.
Fire fighting media and instructions	In case of fire, use water fog, foam, dry chemicals, or carbon dioxide. Do not use water jet.
Protective clothing (fire)	Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

6. Accidental release measures

Personal Precautions	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (See Section: "Exposure controls/personal protection"). Follow all fire fighting procedures (See Section: "Fire-fighting measures").
Environmental precautions and clean-up methods	If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.
Personal protection in case of a large spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

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7. Handling and storage

Handling	Avoid prolonged or repeated contact with skin. Use only with adequate ventilation. Avoid breathing vapor or mist. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. Empty containers may contain harmful, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards.

8. Exposure controls/personal protection

Occupational exposure limits

Ingredient name	Occupational exposure limits
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	ACGIH (United States). TWA: 5 mg/m ³ 8 hour(s). Form: OIL MIST, MINERAL STEL: 10 mg/m ³ 15 minute(s). Form: OIL MIST, MINERAL OSHA (United States). PEL: 5 mg/m ³ 8 hour(s). Form: OIL MIST, MINERAL
LITHIUM COMPLEX SOAP THICKENER	None assigned.
Proprietary performance additives.	None assigned.
SYNTHETIC ESTER	None assigned.

Control Measures Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Hygiene measures Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Personal protection

Eyes	Safety glasses with side shields.
Skin and Body	Avoid prolonged or repeated contact with skin. Wear protective clothing if prolonged or repeated contact is likely.
Respiratory	None required; however, use of adequate ventilation is good industrial practice. If ventilation is inadequate, use a NIOSH certified respirator with an organic vapor cartridge and P95 particulate filter.
Hands	Wear protective gloves if prolonged or repeated contact is likely.

Consult local authorities for acceptable exposure limits.

9. Physical and chemical properties

Physical state	Solid paste.
Odor	Oily
Color	Purple.
Specific Gravity	0.938 to 0.943
Vapor pressure	<0.013 kPa (<0.1 mm Hg) at 20°C
Solubility	insoluble in water.
Viscosity	Kinematic: 320 mm ² /s (320 cSt) at 40°C Kinematic: 30.2 mm ² /s (30.2 cSt) at 100°C

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10. Stability and reactivity

Stability and Reactivity	The product is stable.
Conditions to avoid	Keep away from heat, sparks and flame. Keep away from sources of ignition.
Incompatibility with various substances	Reactive with oxidizing agents, reducing agents, acids, alkalis.
Hazardous Decomposition Products	carbon oxides (CO, CO ₂)
Hazardous polymerization	Will not occur.

11. Toxicological information

Acute toxicity	Unlikely to cause more than transient stinging or redness if accidental eye contact occurs. Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis. Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhea. At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.
Chronic toxicity	
Carcinogenic effects	No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).

12. Ecological information

Ecotoxicity	No testing has been performed by the manufacturer.
Persistence/degradability	Inherently biodegradable
Mobility	Spillages may penetrate the soil causing ground water contamination.
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.
Other ecological information	Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

13. Disposal considerations

Waste information	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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Consult your local or regional authorities.

14. Transport information

International transport regulations

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Regulatory Information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	Not regulated.		----		----	
TDG Classification	Not regulated.		----		----	
IMDG Classification	Not regulated.		----		----	
IATA Classification	Not regulated.		----		----	

15. Regulatory information

U.S. Federal regulations US INVENTORY (TSCA): In compliance.

This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

SARA 313

Form R - Reporting requirements

This product does not contain any hazardous ingredients at or above regulated thresholds.

Supplier notification

This product does not contain any hazardous ingredients at or above regulated thresholds.

CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):: This material is not regulated under CERCLA Sections 103 and 107.

State regulations

No products were found.

Inventories

AUSTRALIAN INVENTORY (AICS): Not determined.

CANADA INVENTORY (DSL): In compliance.

CHINA INVENTORY (IECS): Not determined.

EC INVENTORY (EINECS/ELINCS): Not determined.

JAPAN INVENTORY (ENCS): Not determined.

KOREA INVENTORY (ECL): Not determined.

PHILIPPINE INVENTORY (PICCS): Not determined.

16. Other information

Label Requirements

This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria.

HMIS® Rating :

Health 0
 Flammability 1
 Physical Hazard 0
 Personal protection X

National Fire Protection Association (U.S.A.)




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				(ENGLISH)
				Build 4.1.1

MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet (MSDS) complies with the requirements of OSHA's Hazard Communication Standard.

ER 70S-2, ER 70S-3, ER70S-6 WELDING WIRE

		Emergency Phone Number: 800-424-9300		
Date: March 23, 2000		Product Information Number: 888-838-0615		
SECTION 1 – PRODUCT IDENTIFICATION				
Product Name/Class	AWS A5.18, ER 70S-2, ER 70S-3, ER 70S-6 Welding Wire			
Product Number	004023			
Manufacturer	Radnor Welding Products 259 N. Radnor-Chester Road Suite 100 Radnor, PA. 19087-5283			
SECTION 2 – HAZARDOUS INGREDIENTS				
Material	CAS Number	% By Weight	ACGIH TLV	SARA Section 313
Carbon	1333-86-4	<.50	3.5 MG/M ³ Carbon	N/A
Manganese	7439-96-5	<2.50	5 MG/M ³ Mn & Mn	Yes
Silicon	7440-21-3	<1.50	10 MG/M ³ Total	N/A
Copper	7440-50-8	<.50	2 MG/M ³	Yes
Molybdenum	7439-98-7	<.75	5 MG/M ³	N/A
Aluminum	7429-90-5	<.50	15 MG/M ³ as Weld	Yes
Titanium	7440-32-6	<.50	10 MG/M ³ TiO AS	N/A
Zirconium	7440-67-7	<.50	5 MG/M ³ AS Zr	N/A
Iron	7439-89-6	Balance	5 MG/M ³ Fe203 Fe	N/A
SECTION 3 – PHYSICAL CHARACTERISTICS				
Boiling Point: N/A	Specific Gravity (H ₂ O = 1): N/A	Solubility in Water: N/A		
Vapor Pressure (mm Hg): N/A	Melting Point: N/A	% Volatile: N/A		
Vapor Density (Air = 1): N/A	Evaporation Rate (Butyl Acetate=1): N/A	Appearance and Odor: Solid Wire or Rod.		
SECTION 4 – FIRE and EXPLOSION HAZARD DATA				
Flash Point (Method Used): N/A	Flammable Limits:	LEL: N/A UEL: N/A		
Extinguishing Media: N/A				
Special Fire Fighting Procedures: Non Flammable. Welding arc and sparks can ignite combustibles and flammables. Refer to American National Standard Z49.1 for fire prevention during the use of welding and allied procedures.				
Unusual Fire and Explosion Hazards: N/A				
SECTION 5 – REACTIVITY DATA				
Stability	Unstable <input type="checkbox"/> Stable <input checked="" type="checkbox"/>	Conditions to Avoid: N/A		
Incompatibility (Materials to Avoid): None				
Hazardous Decomposition or Byproducts: The composition and quality of welding fumes and gases are dependent upon metal being welded, process, and electrode being used. Other factors include coatings on the metal being welded (paint, plating or galvanizing), number of welders and volume of work area as presence of contaminants in atmosphere. When electrode is consumed fume and gas decomposition products generated are different in percent and form from ingredients listed in Section 2. Fume and gas decomposition products, and not ingredients in electrode, are important. The concentration of given fume or gas component may decrease or increase by many times original concentration in electrode. New compounds not in electrode may form decomposition products of normal operation include those originating from volatilization, reaction, oxidation of materials in Section 2, plus those from base metal and coating.				
Reasonably expected fume constituents of product could include primarily oxides of iron; secondarily complex oxides of manganese & silicon & aluminum. Gaseous reaction products – carbon monoxide, carbon dioxide. Ozone and nitrogen oxides may be formed by radiation from arc, and shielding gases when employed. One recommended way to determine composition and quantity of fumes and gases to which workers are exposed is to take air sample from inside welders helmet or in working zone. See AWS F1.1 and AWS F1.2-1985, available from American Welding Society. See AWS publication: "Fumes and Gases in the Welding Environment".				
Hazardous Polymerization	May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/>	Conditions to Avoid: N/A		

SECTION 6 – HEALTH HAZARD DATA

Carcinogenicity: The composition of welding or brazing fumes may contain carcinogens, depending on several factors that are unknown and unknowable to the product manufacturer (see Section 5). Always assume that welding or brazing fumes may contain toxic and/or carcinogenic materials, and follow sound Work/Hygiene practices as recommended by ANSI Z49.1.

Threshold Limit Value: The ACGIH recommended general limit for Welding Fume NOC – (Not otherwise Classified) is 5 mg/m³. ACGIH-1987-88 preface states that the TLV-TWA should be used as guides in the control of health hazards and should not be used as fine lines between safe and dangerous concentrations. See Section 5 for specific fume constituents which may modify this TLV. Threshold Limit Values are figures published by the American Conference of Government Industrial Hygienists. Units are milligrams per cubic meter of air. Effects of Overexposure: Electric arc welding may create one or more of the following health hazards: Fumes and Gases can be dangerous to your health. Common entry is by inhalation. Other possible routes are skin contact and ingestion. Short-term (acute) overexposure to welding fumes may result in discomfort such as metal fume fever, dizziness, nausea, or dryness or irritation of nose, throat, or eyes. May aggravate pre-existing respiratory problems (e.g. asthma, emphysema). Exposure to extremely high levels of fluorides can cause abdominal pain, diarrhea, muscular weakness, and convulsions. In extreme cases it can cause loss of consciousness and death. Long-term (chronic) overexposure to welding fumes can lead to siderosis (iron deposits in lung) and may affect pulmonary function. Manganese overexposure can affect the central nervous system, resulting in impaired speech and movement. Bronchitis and some lung fibrosis have been reported. Repeated exposure to fluorides may cause excessive calcification of the bone and calcification of ligaments of the ribs, pelvis and spinal column. May cause skin rash. Arc Rays can injure eyes and burn skin. *Skin cancer has been reported.* Electric Shock can kill. If welding must be performed in damp locations or with wet clothing, on metal structures or when in cramped positions such as sitting, kneeling or lying, if there is a high risk of unavoidable or accidental contact with workpiece, use the following equipment: Semiautomatic DC Welder, DC Manual (Stick) Welder, or AC Welder with Reduced Voltage Control. Emergency and First Aid Procedures: Call for medical aid. Employ first aid techniques recommended by the American Red Cross. IF BREATHING IS DIFFICULT give oxygen. IF NOT BREATHING employ CPR (Cardiopulmonary Resuscitation) techniques. IN CASE OF ELECTRICAL SHOCK, turn off power and follow recommended treatment. In all cases, call a physician.

HMIS Rating Health = 2 Flammability = 0 Reactivity = 0	HMIS Scale 4 = Severe Hazard 3 = Serious Hazard 2 = Moderate Hazard 1 = Slight Hazard 0 = Minimal Hazard	NFPA Rating Health = 1 Flammability = 0 Reactivity = 0 Other = 0	NFPA Scale 4 = Severe Hazard 3 = Serious Hazard 2 = Moderate Hazard 1 = Slight Hazard 0 = Minimal Hazard
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SECTION 7 – PRECAUTIONS for SAFE HANDLING and USE

Steps to Be Taken in Case Material Is Released or Spilled: N/A

Waste Disposal Method: Prevent waste from contaminating surrounding environment. Discard product residue, disposable container or liner in an environmentally acceptable manner, in full compliance with federal, state, and local regulations.

Precautions to Be Taken In Handling and Storing: N/A

Other Precautions: N/A

SECTION 8 – CONTROL MEASURES

Respiratory Protection (Specify Type): Make sure inhaled air does not contain fume constituents above permissible exposure levels.

Ventilation: Use enough ventilation, local exhaust at the arc, or both to keep the fumes and gases from the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes. *Keep exposure as low as possible.*

Protective Gloves: Leather welding gloves. **Eye Protection:** Safety glasses with shaded lenses.

Other Protective Clothing or Equipment: Wear hand, head, and body protection which help to prevent injury from radiation, sparks and electrical shock or burns. See Z49.1. At a minimum this includes welder's gloves and a protective face shield or goggles, and may include arm protectors, aprons, hats, shoulder protection, as well as heat-resistant clothing.

Work/Hygiene Practices: For maximum safety: Be certified for, and wear a respirator at all times when welding or brazing.

OTHER INFORMATION REQUIRED BY STATE OR FEDERAL LAW

California Proposition 65 Information: Warning: This product contains a chemical known to the State of California to cause cancer.

New Jersey Right-To-Know Information: 5 most predominant ingredients/hazardous and non-hazardous)
1. Iron; 2. Manganese; 3. Silicon; 4. Molybdenum; 5. Copper.

SARA Title III Notification Information: All chemical compounds marked with an asterisk (*) are toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Super Fund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372. You must notify each person to whom this mixture of trade name product is sold. This statement must remain a part of this Material Safety Data Sheet. This statement must be not detached. Any copy or redistribution of this Material Safety Data Sheet shall include this statement.

Disclaimer of Expressed and Implied Warranties: The information in this document is believed to be correct as of the date issued. However, no warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use.

Permatex, Inc.
 10 Columbus Blvd.
 Hartford, CT 06106
 Telephone: 1-87-Permatex
 (877) 376-2839
 Emergency: 800-255-3924

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: MEDIUM STRENGTH THREADLOCKER BLUE 36ML
 Item No: 24240
 Product Type: Anaerobic

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
POLYGLYCOL DIMETHACRYLIC 25852-47-5	60-70		
POLYETHYLENE GLYCOL ESTER 18268-70-7	20-30		
SACCHARIN 81-07-2	1-10	10mg/m ³ nuisance dust	
TREATED FUMED SILICA 67762-90-7	1-10	10 mg/m ³ total dust	
...-DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	1-10		

3. HAZARDS IDENTIFICATION

Toxicity:

May cause eye and skin irritation. At elevated temperatures may cause irritation of the respiratory tract. Irritates mucous membranes. Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea. May cause central nervous system (CNS) depression. May cause skin sensitization. Eye and skin contact, ingestion, inhalation.

Primary Routes of Entry:

Signs and Symptoms of Exposure:

Repeated skin contact may cause allergic skin reactions. Skin redness. Ingestion may cause nausea and vomiting. Inhalation overexposure may cause irritation, coughing and flu-like symptoms. May cause pain, redness or swelling of the eyes and excessive blinking and tear production.

Ingredients	Percent	NTP:	ACGIH Carcinogens	IARC:
SACCHARIN 81-07-2	1-10	Delisted April 2000		Group 3: Vol 73, Page 517: 1999

Medical Conditions Recognized as Being Aggravated by Exposure: Preexisting skin disorders.

4. FIRST AID MEASURES

Ingestion:

If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Contact:

Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C):

More than 200 degrees C. Method: PMCC

Product Name: MEDIUM STRENGTH THREADLOCKER BLUE 36ML
Item No: 24240

Recommended Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical.
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus.
Hazardous Products Formed by Fire or Thermal Decomposition: Irritating vapors. Oxides of carbon.
Unusual Fire/Explosion Hazards: Closed containers may rupture or explode when exposed to extreme heat.
Lower Explosive Limit: Not determined
Upper Explosive Limit: Not determined

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store below 100 degrees F.
Handling: Avoid prolonged skin contact. Keep away from eyes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses or goggles.
Skin: Neoprene, rubber or butyl rubber gloves
Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.
Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue liquid
Odor: MILD
Boiling Point (°F): More than 300 degrees F.
pH: Does not apply
Solubility in Water: Insoluble
Specific Gravity: >1.0
VOC Content(Wt.%): Not determined
Vapor Pressure: Not determined
Vapor Density (Air=1): Not Determined
Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: Will not occur
Incompatibilities: Strong oxidizers, free radical initiators, inert gases.
Conditions to Avoid: High temperatures.
Hazardous Products Formed by Fire or Thermal Decomposition: Irritating vapors. Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Product Name: MEDIUM STRENGTH THREADLOCKER BLUE 36ML
Item No: 24240

Domestic Ground Transport

DOT Shipping Name: Unrestricted
Hazard Class: NONE
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: None

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
DIMETHYLBENZYL HYDROPEROXIDE

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 1
Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

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Revision Number: 0

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: FAST ORANGE PUMICE LOTION 1GA PMPBO
 Item No: 25218
 Product Type: Waterless hand cleaner

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
Water 7732-18-5	75-85		
PUMICE 1332-09-8	5-15	10 mg/m3 (Inhal); 3 mg/m3 (resp)	15 mg/m3 (total); 5 mg/m3 (resp)
D-Limonene 5989-27-5	5-15	Not Established	Not Established
ETHOXYLATED C11-C16 ALCOHOL 127036-24-2	1-10		
SILICA, QUARTZ 14808-60-7	0.1-1.0	0.1 mg/m3 TWA respirable	0.1 mg/m3 TWA respirable

3. HAZARDS IDENTIFICATION

Toxicity: Oral LD50 greater than 5000 mg/kg. Primary irritation tests show that this product is not a primary irritant.
 Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.
 Signs and Symptoms of Exposure: None under normal conditons of use.

Ingredients	Percent	NTP:	ACGIH Carcinogens	IARC:
D-Limonene 5989-27-5	5-15	male rat-clear evidence; female rat-no evidence; male mice-no evidence; female mice-no evidence		
SILICA, QUARTZ 14808-60-7	0.1-1.0	Known Carcinogen		Group 1; Vol. 68; 1997

Medical Conditions Recognized as Being Aggravated by Exposure: None known

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.
 Inhalation: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
 Skin Contact: Flush with copious amounts of water.
 Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): 193 degrees F. Method: Setflash Closed Cup

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: HIGH STRENGTH THREADLOCKER RED 6ML
 Item No: 27100
 Product Type: Anaerobic

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
METHACRYLATE MONOMER 25852-47-5	60-70		
SACCHARIN 81-07-2	1-10	10mg/m3 nuisance dust	
-DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	1-10		

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye and skin irritation. At elevated temperatures may cause irritation of the respiratory tract. Irritates mucous membranes. Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea. May cause central nervous system (CNS) depression. May cause skin sensitization. Eye and skin contact, ingestion, inhalation.

Primary Routes of Entry: Repeated skin contact may cause allergic skin reactions. Skin redness. Ingestion may cause nausea and vomiting. Inhalation overexposure may cause irritation, coughing and flu-like symptoms. May cause pain, redness or swelling of the eyes and excessive blinking and tear production.

Signs and Symptoms of Exposure:

Ingredients	Percent	NTP:	ACGIH Carcinogens	IARC:
SACCHARIN 81-07-2	1-10	Delisted April 2000		Group 3: Vol 73, Page 517: 1999

Medical Conditions Recognized as Being Aggravated by Exposure: Preexisting skin disorders.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.

Inhalation: This product has a very low vapor pressure. Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor, remove from exposure and seek medical attention if distress or irritation persists.

Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): More than 200 degrees C. Method: PMCC

Recommended Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical.

Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus.

Hazardous Products Formed by Fire or Irritating vapors.

Product Name: HIGH STRENGTH THREADLOCKER RED 6ML
Item No: 27100

Thermal Decomposition:
Unusual Fire/Explosion Hazards: Closed containers may rupture or explode when exposed to extreme heat.
Lower Explosive Limit: Not determined
Upper Explosive Limit: Not determined

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store below 100 degrees F.
Handling: Avoid prolonged skin contact. Keep away from eyes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses or goggles.
Skin: Neoprene, rubber or butyl rubber gloves
Ventilation: General ventilation is usually adequate.
Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Red liquid
Odor: MILD
Boiling Point (°F): More than 150 degrees C.
pH: Does not apply
Solubility in Water: Insoluble
Specific Gravity: >1.0
VOC Content(Wt.%): Not determined
Vapor Pressure: Not determined
Vapor Density (Air=1): Heavier than air
Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatibilities: Strong oxidizers, free radical initiators, inert gases.
Conditions to Avoid: High temperatures.
Hazardous Products Formed by Fire or Thermal Decomposition: Imitating vapors.

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Unrestricted
Hazard Class: NONE
UN/ID Number: None

Product Name: HIGH STRENGTH THREADLOCKER RED 6ML
Item No: 27100

Marine Pollutant: None
IATA
Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: None
IMDG
Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
DIMETHYLBENZYL HYDROPEROXIDE

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 1
Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: HIGH STRENGTH THREADLOCKER RED 36ML
 Item No: 27140
 Product Type: Anaerobic

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
METHACRYLATE MONOMER 25852-47-5	60-70		
SACCHARIN 81-07-2	1-10	10mg/m3 nuisance dust	
...DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	1-10		

3. HAZARDS IDENTIFICATION

Toxicity:

May cause eye and skin irritation. At elevated temperatures may cause irritation of the respiratory tract. Irritates mucous membranes. Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea. May cause central nervous system (CNS) depression. May cause skin sensitization. Eye and skin contact, ingestion, inhalation.

Primary Routes of Entry:

Signs and Symptoms of Exposure:

Repeated skin contact may cause allergic skin reactions. Skin redness. Ingestion may cause nausea and vomiting. Inhalation overexposure may cause irritation, coughing and flu-like symptoms. May cause pain, redness or swelling of the eyes and excessive blinking and tear production.

Ingredients	Percent	NTP:	ACGIH Carcinogens	IARC:
SACCHARIN 81-07-2	1-10	Delisted April 2000		Group 3: Vol 73, Page 517: 1999

Medical Conditions Recognized as Being Aggravated by Exposure: Preexisting skin disorders.

4. FIRST AID MEASURES

Ingestion:

Inhalation:

Skin Contact:

Eye Contact:

If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.

This product has a very low vapor pressure. Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor, remove from exposure and seek medical attention if distress or irritation persists.

Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C):

Recommended Extinguishing Media:

Special Fire-Fighting Procedures:

Hazardous Products Formed by Fire or

More than 200 degrees C. Method: PMCC

Water fog, carbon dioxide, foam, dry chemical.

Firefighters should wear self-contained breathing apparatus.

Irritating vapors.

Product Name: HIGH STRENGTH THREADLOCKER RED 36ML
Item No: 27140

Thermal Decomposition:
Unusual Fire/Explosion Hazards: Closed containers may rupture or explode when exposed to extreme heat.
Lower Explosive Limit: Not determined
Upper Explosive Limit: Not determined

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store below 100 degrees F.
Handling: Avoid prolonged skin contact. Keep away from eyes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses or goggles.
Skin: Neoprene, rubber or butyl rubber gloves
Ventilation: General ventilation is usually adequate.
Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Red liquid
Odor: MILD
Boiling Point (°F): More than 150 degrees C.
pH: Does not apply
Solubility in Water: Insoluble
Specific Gravity: >1.0
VOC Content(Wt.%): Not determined
Vapor Pressure: Not determined
Vapor Density (Air=1): Heavier than air
Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatibilities: Strong oxidizers, free radical initiators, inert gases.
Conditions to Avoid: High temperatures.
Hazardous Products Formed by Fire or Thermal Decomposition: Irritating vapors.

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Unrestricted
Hazard Class: NONE
UN/ID Number: None

Product Name: HIGH STRENGTH THREADLOCKER RED 36ML
Item No: 27140

Marine Pollutant: None
IATA
Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: None
IMDG
Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
DIMETHYLBENZYL HYDROPEROXIDE

CALIFORNIA PROP 65:
No California Prop 65 chemicals are known to be present.

TSCA Inventory Status:
All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 1
Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

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Revision Date: 03/12/2002

Revision Number: 0

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 518 GASKET ELIMINATOR 50ML TB
Item No: 51813
Product Type: Anaerobic

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
POLYURETHANE METHACRYLATE RESIN MIXTURE	50-70		
POLYGLYCOL DIMETHACRYLIC 25852-47-5	10-30		
SILICON DIOXIDE, AMORPHOUS 112945-52-5	1-10	10 mg/m3 TWA	6 mg/m3 TWA
ACRYLIC ACID 79-10-7	1-10	2 ppm TWA; 5.9 mg/m3 TWA	10 ppm TWA; 30 mg/m3 TWA
-DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	1-10		
SACCHARIN 81-07-2	0.1-1.0	10mg/m3 nuisance dust	

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye and skin irritation. Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea. May cause skin sensitization.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.
Signs and Symptoms of Exposure: May cause redness to eyes and irritation to nasal passages. Repeated skin contact may cause allergic skin reactions.

Ingredients	Percent	NTP:	ACGIH Carcinogens	IARC:
SILICON DIOXIDE, AMORPHOUS 112945-52-5	1-10			Amorphous Silica, Group 3: Vol. 68: 1997
ACRYLIC ACID 79-10-7	1-10		A4 - Not Classifiable as a Human Carcinogen	
SACCHARIN 81-07-2	0.1-1.0	Delisted April 2000		Group 3: Vol 73, Page 517: 1999

Medical Conditions Recognized as Being Aggravated by Exposure: May aggravate preexisting dermatitis.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.
Inhalation: Not a hazard under normal use conditions. If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.
Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.
Eye Contact: in case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention.

Product Name: 518 GASKET ELIMINATOR 50ML TB
Item No: 51813

attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): More than 200 degrees F. Method: Tag Closed Cup
Recommended Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical.
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus.
Hazardous Products Formed by Fire or Thermal Decomposition: Irritating vapors. Oxides of carbon.
Unusual Fire/Explosion Hazards: None
Lower Explosive Limit: 2.0: Acylic acid
Upper Explosive Limit: 8.0: Acrylic acid

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Scrape up as much as possible and store in an approved waste container for disposal. Residues may be cleaned up with solvent.

7. HANDLING AND STORAGE

Storage: Store below 100 degrees F. Keep in cool and dark place. Avoid direct sunlight.
Handling: Avoid prolonged skin contact. Keep away from eyes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses or goggles.
Skin: Neoprene or nitrile gloves recommended.
Ventilation: General ventilation is usually adequate.
Respiratory Protection: None normally required under general ventilation. If exposure levels are unknown or exceed TLV, use NIOSH-approved respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Red gel
Odor: MILD
Boiling Point (°F): More than 150 degrees C.
pH: Does not apply
Solubility in Water: Slight
Specific Gravity: 1.1 @ 80 degrees F.
VOC Content(Wt.%): Not determined
Vapor Pressure: Less than 5 mm Hg @ 25 degrees C.
Vapor Density (Air=1): Heavier than air
Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatibilities: Metal salts, heat and amines.
Conditions to Avoid: High temperatures.
Hazardous Products Formed by Fire or Thermal Decomposition: Irritating vapors. Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

Product Name: 518 GASKET ELIMINATOR 50ML TB
Item No: 51813

14. TRANSPORT INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Unrestricted
Hazard Class: NONE
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: NONE

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
ACRYLIC ACID, DIMETHYLBENZYL HYDROPEROXIDE, ETHYLENE GLYCOL

CALIFORNIA PROP 65:

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 1
Estimated HMIS Classification: HEALTH 2, FLAMMABILILTY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

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Revision Date: 05/13/2002

Revision Number: 0

Product Name: 518 GASKET ELIMINATOR 50ML TB
Item No: 51813

14. TRANSPORT INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Unrestricted
Hazard Class: NONE
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: NONE

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
ACRYLIC ACID, DIMETHYLBENZYL HYDROPEROXIDE, ETHYLENE GLYCOL

CALIFORNIA PROP 65:

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 1
Estimated HMIS Classification: HEALTH 2, FLAMMABILTY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

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Revision Number: 0

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 2BR FORM A GASKET #2 SEALANT 3OZ
Item No: 80016
Product Type: Sealant

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
KAOLIN 1332-58-7	50-60	2 mg/m3 dust	10 mg/m3 dust; 5 mg/m3 respir.
VEGETABLE OIL 68187-84-8	15-25		
ROSIN 8050-09-7	10.20	sensitizer; reduce exposure to as low as possible	15 mg/m3 total dust; 5 mg/m3 respir.
2-PROPANOL 67-63-0	10-20	400 ppm TWA; 983 mg/m3 TWA	400 ppm TWA
LECITHIN 8002-43-5	1-10		
CARBON BLACK 1333-86-4	0.1-1.0	3.5 mg/m3 TWA	3.5 mg/m3 TWA
SILICA, QUARTZ 14808-60-7	0.1-1.0	0.05 mg/m3 TWA respirable	0.1 mg/m3 TWA respirable

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye, skin and respiratory irritation. Oral LD50 greater than 5000 mg/kg.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.
Signs and Symptoms of Exposure: Excessive accidental exposure may cause headache, dizziness, nausea and mild respiratory irritation. Overexposure may cause eye and skin redness.

Ingredients	Percent	NTP:	ACGIH Carcinogens	IARC:
CARBON BLACK 1333-86-4	0.1-1.0		Group A4	Group 2B; Vol. 65, pg 149, 1996
SILICA, QUARTZ 14808-60-7	0.1-1.0	Known Carcinogen		Group 1; Vol. 68; 1997

Medical Conditions Recognized as Being Aggravated by Exposure: Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.
Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.
Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Product Name: 2BR FORM A GASKET #2 SEALANT 3OZ
Item No: 80016

Flash Point (°F/C): Does not apply. Per ASTM D4359 this product is a solid.
Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus. Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool.
Hazardous Products Formed by Fire or Thermal Decomposition: Aldehydes, Oxides of carbon. Carboxylic acids
Unusual Fire/Explosion Hazards: Closed containers may rupture or explode when exposed to extreme heat.
Lower Explosive Limit: 2
Upper Explosive Limit: 12

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Eliminate all sources of ignition. Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Residues may be cleaned up with isopropyl alcohol.

7. HANDLING AND STORAGE

Storage: Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F.
Handling: Avoid contact with skin and eyes. Do not inhale vapors. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses or goggles.
Skin: Rubber or plastic gloves
Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.
Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Black paste
Odor: Alcohol Odor
Boiling Point (°F): 180 degrees F.
pH: Does not apply
Solubility in Water: Partial
Specific Gravity: 1.5
VOC Content(Wt.%): 14.2% by weight; 213 g/l
Vapor Pressure: 33 mm Hg @ 68 degrees F.
Vapor Density (Air=1): 2.07
Evaporation Rate: 7.7 (ether = 1)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatibilities: Strong oxidizers.
Conditions to Avoid: Do not expose to heat or store at temperatures above 120 F.
Hazardous Products Formed by Fire or Thermal Decomposition: Aldehydes, Oxides of carbon. Carboxylic acids

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

Product Name: 2BR FORM A GASKET #2 SEALANT 3OZ
Item No: 80016

14. TRANSPORT INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Unrestricted
Hazard Class: NONE
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: NONE

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
NONE

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present at or above the No Significant Risk Level.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 0
Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

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Revision Number: 1

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 6BR SENSOR SAFE BLUE RTV SILICONE 3 OZ TB/CG
Item No: 80022
Product Type: Silicone

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
POLY (DIMETHYLSILOXANE), HYDROXY TERMINATED 70131-67-8	65-75		
POLYDIMETHYLSILOXANE 63148-62-9	5-25		
SILOXANE TREATED FUMED SILICA 68583-49-3	5-25		
AMORPHOUS SILICA 7631-86-9	5-25	10 mg/m3 TWA	6 mg/m3 TWA
ETHYLTRIACETOXYSILANE 17689-77-9	1-10		
METHYLTRIACETOXYSILANE 4253-34-3	1-10		
ACETIC ACID ... % 64-19-7	****	10 ppm TWA; 25 mg/m3 TWA	10 ppm TWA; 25 mg/m3 TWA

3. HAZARDS IDENTIFICATION

Toxicity:

****When this product is exposed to moisture, 1-3% acetic acid may be formed. May cause eye and skin irritation. May irritate lips, gums, tongue, mouth, nose and throat. May be harmful if swallowed. When heated to temperatures above 300 degrees F. in the presence of air, this product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard and a known skin and respiratory sensitizer. Safe handling conditions may be maintained by keeping vapor concentrations below the OSHA permissible limit for formaldehyde. Hydroxy terminated silicone: Oral LD50 greater than 40,000 mg/kg (rat), Inhalation LC50 greater than 535 mg/l (rat); Methyltriacetoxysilane: Oral LD50 = 2060 mg/kg; Siloxane treated fumed silica: Oral LD50 greater than 40,000 mg/kg (rat), Inhalation LC50 greater than 535 mg/l (rat).

Primary Routes of Entry:

Eye and skin contact, ingestion, inhalation.

Signs and Symptoms of Exposure:

Acetic acid produced during curing irritates eyes, nose and throat. Repeated skin contact may cause allergic skin reactions.

Medical Conditions Recognized as Being Aggravated by Exposure: Methyltriacetoxysilane: Eye, skin and pulmonary disorders.

4. FIRST AID MEASURES

Ingestion:

Rinse mouth with water several times. If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.

Inhalation:

If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Skin Contact:

Wipe off paste with paper towel or cloth. Wash exposed area with soap and water. Seek medical attention if irritation persists.

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Product Name: 6BR SENSOR SAFE BLUE RTV SILICONE 3 OZ TB/CG
Item No: 80022

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): More than 200 degrees F. Method: Tag Closed Cup
Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures: Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool.
Hazardous Products Formed by Fire or Thermal Decomposition: Acetic acid, Formaldehyde, Silica fume, Oxides of carbon. Oxides of nitrogen, Metal oxide fumes, Incomplete combustion may emit component hydrocarbons.
Unusual Fire/Explosion Hazards: None
Lower Explosive Limit: Acetic acid: 4%
Upper Explosive Limit: Acetic acid: 19.9% @ 200 degrees F.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Wipe or scrape up spill material. Maintain good ventilation for large spills. Place scrap material in a well-ventilated area and allow to cure to rubber. Clean up spills thoroughly as residue is slippery.

7. HANDLING AND STORAGE

Storage: Store in a dry area below 90 degrees F. Keep container closed when not in use.
Handling: Avoid contact with skin and eyes. Do not inhale vapors.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Not normally required, but wearing safety glasses will minimize exposure.
Skin: Rubber or plastic gloves
Ventilation: General ventilation is usually adequate.
Respiratory Protection: Not normally necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue paste
Odor: ACETIC ACID ODOR
Boiling Point (°F): Not applicable, polymeric material
pH: Does not apply
Solubility in Water: Polymerized
Specific Gravity: 1.04
VOC Content(Wt.%): 4.6% by weight; 47.8 g/l
Vapor Pressure: Less than 5 mm Hg @ 80 degrees F.
Vapor Density (Air=1): Not Determined
Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatibilities: Polymerized by contact with moisture. Acetic acid liberated.
Conditions to Avoid: Moisture while storing.
Hazardous Products Formed by Fire or Thermal Decomposition: Acetic acid, Formaldehyde, Silica fume, Oxides of carbon. Oxides of nitrogen, Metal oxide fumes, Incomplete combustion may emit component hydrocarbons.

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORT INFORMATION

Product Name: 6BR SENSOR SAFE BLUE RTV SILICONE 3 OZ TB/CG
Item No: 80022

DOT (49CFR 172)**Domestic Ground Transport**

DOT Shipping Name: Unrestricted
Hazard Class: NONE
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: NONE

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
 NONE

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 1, REACTIVITY 1
Estimated HMIS Classification: HEALTH 2, FLAMMABILTY 1, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.
 HMIS is a registered trademark of the National Paint and Coatings Assn.

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: **FAST BREAK SUPER PENETRANT 12OZ AE**
 Item No: **80052**
 Product Type: **Aerosol lubricant**

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
MINERAL OIL 64741-44-2	10-30	5 mg/m3 TWA	10 mg/m3 TWA
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC 64742-52-5	10-30	5 mg/m3 mist	5 mg/m3 mist
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPH. 64742-89-8	10-30		
PETROLEUM GASES, LIQUEFIED, SWEETENED 68476-86-8	7-13	1000 ppm TWA	

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye, skin and respiratory irritation. Intentional misuse by concentrating and inhaling the vapor may be harmful or fatal. Aspiration hazard if swallowed.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.
Signs and Symptoms of Exposure: Excessive overexposure may cause giddiness, dizziness, headache, nausea and in extreme cases, unconsciousness and respiratory depression. Overexposure may cause eye and skin redness.

Medical Conditions Recognized as Being Aggravated by Exposure: Persons with respiratory problems such as emphysema and asthma should avoid inhalation.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Obtain medical attention immediately.
Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.
Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): -100 degrees F. Based on propellant
Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus. Keep containers cool. Use equipment or shielding required to protect against bursting or venting of containers. Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool.
Hazardous Products Formed by Fire or Thermal Decomposition: Carbon Monoxide and Carbon Dioxide.
Unusual Fire/Explosion Hazards: Contents under pressure. Exposure to temperatures over 120 degrees F. may cause bursting or venting. Use equipment or shielding to protect personnel from bursting containers.

Product Name: FAST BREAK SUPER PENETRANT 12OZ AE
Item No: 80052

Lower Explosive Limit: 1.9
Upper Explosive Limit: 9.5

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Eliminate all sources of ignition. Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F.
Handling: Use only in a well ventilated area. Extinguish all flames, pilot lights and heaters. Turn off stoves, electric tools and appliances, and other sources of ignition. Do not puncture or incinerate container. Do not use near heat, sparks or open flame. Avoid contact with skin and eyes. Intentionally concentrating and inhaling the vapor may be harmful or fatal. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses with side shields.
Skin: Not normally required when using an aerosol. Wear chemical resistant gloves if repeated skin contact occurs or causes irritation.
Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.
Respiratory Protection: Use approved NIOSH respiratory protection if TLV exceeded, or over-exposure is likely.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Brown liquid
Odor: SOLVENT ODOR
Boiling Point (°F): >200 degrees F.
pH: Does not apply
Solubility in Water: Insoluble
Specific Gravity: 0.81-0.91
VOC Content(Wt.%): 25.1% by weight
Vapor Pressure: 66-72 psig
Vapor Density (Air=1): Heavier than air
Evaporation Rate: Not determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatibilities: Strong oxidizers.
Conditions to Avoid: Do not expose to heat or store at temperatures above 120 F.
Hazardous Products Formed by Fire or Thermal Decomposition: Carbon Monoxide and Carbon Dioxide.

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations. This container may be recycled in aerosol recycling centers. Before offering for recycling, empty the can by using the product according to the label. If recycling is not available, wrap the container and discard in the trash.
US EPA Waste Number: D001 as per 40CFR 261.21

14. TRANSPORTATION INFORMATION

Product Name: FAST BREAK SUPER PENETRANT 12OZ AE
Item No: 80052

DOT (49CFR 172)**Domestic Ground Transport**

DOT Shipping Name: CONSUMER COMMODITY
Hazard Class: ORM-D
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Consumer Commodity
Class or Division: Class 9
UN/NA Number: ID 8000

IMDG

Proper Shipping: Aerosols, Limited Quantity
Hazard Class: Class 2.1
UN Number: UN 1950

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
NONE

CALIFORNIA PROP 65:

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 1, FLAMMABILITY 4, REACTIVITY 0
Estimated HMIS Classification: HEALTH 1, FLAMMABILITY 4, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: WL9 WHITE LITHIUM GREASE 1.5 OZ. TB
Item No: 80345
Product Type: Lubricant

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC 64742-52-5	80-90	5 mg/m3 mist	5 mg/m3 mist
LITHIUM SOAP 7620-77-1	1-10		
ZINC OXIDE 1314-13-2	1-10	5 mg/m3 (fume) TWA; 10 mg/m3 (dust)	5 mg/m3 (fume) TWA; 15 mg/m3 (dust)

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye, skin and respiratory irritation.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.
Signs and Symptoms of Exposure: Overexposure may cause eye and skin redness. Overexposure may cause nasal irritation.

Medical Conditions Recognized as Being Aggravated by Exposure: None known

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.
Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.
Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): 360 degrees F. Method: Cleveland Open Cup
Recommended Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical.
Special Fire-Fighting Procedures: No special procedures.
Hazardous Products Formed by Fire or Thermal Decomposition: Oxides of carbon.
Unusual Fire/Explosion Hazards: None
Lower Explosive Limit: Not determined.
Upper Explosive Limit: Not determined.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Product Name: WL9 WHITE LITHIUM GREASE 1.5 OZ. TB
Item No: 80345

Storage: No special precautions.
Handling: Avoid prolonged skin contact. Keep away from eyes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Not normally required, but wearing safety glasses will minimize exposure.
Skin: Rubber or plastic gloves
Ventilation: General ventilation is usually adequate.
Respiratory Protection: Not normally necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White paste
Odor: BLAND
Boiling Point (°F): 700 degrees F.
pH: Does not apply
Solubility in Water: Nil
Specific Gravity: 0.90
VOC Content(Wt.%): Not determined
Vapor Pressure: Not Determined
Vapor Density (Air=1): Not Determined
Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatibilities: Strong oxidizers.
Conditions to Avoid: High temperatures.
Hazardous Products Formed by Fire or Thermal Decomposition: Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORT INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Unrestricted
Hazard Class: NONE
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: NONE

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

Product Name: WL9 WHITE LITHIUM GREASE 1.5 OZ. TB
Item No: 80345

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
ZINC COMPOUND

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 1, FLAMMABILITY 0, REACTIVITY 0
Estimated HMIS Classification: HEALTH 1, FLAMMABILITY 0, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: SA-8 BATTERY CLEANER 5 OZ AE
Item No: 80369
Product Type: Aerosol cleaner

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
Water 7732-18-5	70-80		
BUTANE [1], ISOBUTANE [2] 106-97-8	1-10	800 ppm TWA; 1900 mg/m3 TWA	800 ppm TWA; 1900 mg/m3 TWA
PROPANE 74-98-6	1-10	simple asphyxiant; 2500 ppm TWA	1000 ppm TWA; 1800 mg/m3 TWA
TRIETHANOLAMINE 102-71-6	1-10	5 mg/m3 TWA	
2-BUTOXYETHANOL 111-76-2	1-10	25 ppm TWA; 121 mg/m3 TWA	50 ppm TWA; 240 mg/m3 TWA
SODIUM BICARBONATE 144-55-8	1-10		
ETHOXYLATED NONYLPHENOL 9016-45-9	1-10		

3. HAZARDS IDENTIFICATION

Toxicity: Exposure to vapors or mist may result in irritation of the respiratory tract. Intentional misuse by concentrating and inhaling the vapor may be harmful or fatal. Harmful if swallowed. May cause eye and skin irritation. Prolonged exposure may cause liver and kidney effects and may affect the central nervous system.

Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.

Signs and Symptoms of Exposure: Excessive accidental exposure may cause headache, dizziness, nausea and mild respiratory irritation. May cause pain, redness or swelling of the eyes and excessive blinking and tear production. Skin: Exposure may cause mild skin irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying, cracking and skin burns. Preexisting skin disorders may be aggravated by exposure. Skin absorption is possible, but harmful effects are not expected from this route under normal conditions of handling and use.

Medical Conditions Recognized as Being Aggravated by Exposure: Persons with preexisting respiratory, liver, kidney, eye or skin diseases may be adversely affected.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Drink water or milk. Seek medical attention immediately.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): -165 degrees F. Based on propellant

Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.

Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus. Keep containers cool. Use equipment or

Product Name: SA-8 BATTERY CLEANER 5 OZ AE
Item No: 80369

Hazardous Products Formed by Fire or Thermal Decomposition: shielding required to protect against bursting or venting of containers. Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool. Oxides of carbon.

Unusual Fire/Explosion Hazards: Contents under pressure. Exposure to temperatures over 120 degrees F. may cause bursting or venting. Keep containers cool. Use equipment or shielding to protect personnel from bursting containers.

Lower Explosive Limit: 1.8
Upper Explosive Limit: 9.5

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Eliminate all sources of ignition. Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F.

Handling: Avoid contact with skin and eyes. Do not inhale vapors. Do not use near heat, sparks or open flame. Intentionally concentrating and inhaling the vapor may be harmful or fatal. Wash hands before eating and smoking.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses or goggles.

Skin: Chemical resistant gloves.

Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.

Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White foam

Odor: SLIGHT SOLVENT

Boiling Point (°F): Not determined.

pH: 7.5-8.5

Solubility in Water: SOLUBLE

Specific Gravity: 0.95-1.05

VOC Content(Wt.%): <15% by weight

Vapor Pressure: 50 psig

Vapor Density (Air=1): Heavier than air

Evaporation Rate: <1 (butyl acetate = 1)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions

Hazardous Polymerization: WILL NOT OCCUR

Incompatibilities: Strong oxidizers.

Conditions to Avoid: Do not expose to heat or store at temperatures above 120 F.

Hazardous Products Formed by Fire or Thermal Decomposition: Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations. This container may be recycled in aerosol recycling centers. Before offering for recycling, empty the can by using the product according to the label. If recycling is not available, wrap the container and discard in the

Product Name: SA-8 BATTERY CLEANER 5 OZ AE
Item No: 80369

US EPA Waste Number: trash.
 D001 as per 40CFR 261.21

14. TRANSPORT INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: CONSUMER COMMODITY
Hazard Class: ORM-D
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Consumer Commodity
Class or Division: Class 9
UN/NA Number: ID 8000

IMDG

Proper Shipping: Aerosols, Limited Quantity
Hazard Class: Class 2.2
UN Number: UN 1950

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
 2-Butoxyethanol

CALIFORNIA PROP 65:

WARNING: This product contains a chemical known to the State of California to cause cancer.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 1, FLAMMABILITY 4, REACTIVITY 0
Estimated HMIS Classification: FLAMMABILITY 4, REACTIVITY 0, HEALTH 2

NFPA is a registered trademark of the National Fire Protection Assn.
 HMIS is a registered trademark of the National Paint and Coatings Assn.

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Revision Date: 03/08/2001
Revision Number: 1

Supplier:
Permatex, Inc.
10 Columbus Blvd.
Hartford, CT 06106
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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: SA9 BATTERY PROTECTOR & SEALANT 5 OZ AE
Item No: 80370
Product Type: Aerosol coating

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
PROPANE 74-98-6	15-25	simple asphyxiant; 2500 ppm TWA	1000 ppm TWA; 1800 mg/m3 TWA
MINERAL OIL 8042-47-5	20-30		
ACETONE 67-64-1	15-30	500 ppm TWA; 1188 mg/m3 TWA	1000 ppm TWA; 2400 mg/m3 TWA
XYLENE, MIXTURE OF ISOMERS 1330-20-7	10-20	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA; 435 mg/m3 TWA
PETROLATUM 8009-03-8	10-20		
ETHYL BENZENE 100-41-4	1-10	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA; 435 mg/m3 TWA

3. HAZARDS IDENTIFICATION

Toxicity: Aspiration hazard if swallowed. Deliberately concentrating and inhaling the vapor may be harmful or fatal. Exposure to vapors or mist may result in irritation of the respiratory tract. Long term exposure to high concentrations of vapor may cause lung, liver or kidney damage. May cause eye and skin irritation. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as "solvent" or "painter's syndrome"). Symptoms include fatigue, concentration difficulties, anxiety, depression, rapid mood swings, and short-term memory loss.

Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.

Signs and Symptoms of Exposure: Excessive overexposure may cause giddiness, dizziness, headache, nausea and in extreme cases, unconsciousness and respiratory depression. May cause redness to eyes and irritation to nasal passages.

Ingredients	Percent	NTP:	ACGIH Carcinogens	IARC:
ACETONE 67-64-1	15-30		A4 - Not Classifiable as a Human Carcinogen	
XYLENE, MIXTURE OF ISOMERS 1330-20-7	10-20	male rat-no evidence; female rat-no evidence; male mice-no evidence; female mice-no evidence	A4 - Not Classifiable as a Human Carcinogen	

Medical Conditions Recognized as Being Aggravated by Exposure: Heart disease, respiratory disorders, liver and kidney diseases, anemia, rhythm disorders of the heart. Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product.

4. FIRST AID MEASURES

Ingestion: If swallowed, do NOT induce vomiting. Give victim two glasses of water, Call a physician immediately. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If

Product Name: SA9 BATTERY PROTECTOR & SEALANT 5 OZ AE
Item No: 80370

Skin Contact:

breathing is difficult give oxygen. Get medical attention.
 Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.

Eye Contact:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES**Flash Point (°F/C):**

-165 degrees F. Based on propellant

Recommended Extinguishing Media:

Carbon Dioxide, Dry Chemicals, Foam.

Special Fire-Fighting Procedures:

Firefighters should wear self-contained breathing apparatus. Keep containers cool. Use equipment or shielding required to protect against bursting or venting of containers. Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool.

Hazardous Products Formed by Fire or Thermal Decomposition:

Oxides of carbon. Irritating vapors.

Unusual Fire/Explosion Hazards:

Contents under pressure. Exposure to temperatures over 120 degrees F. may cause bursting or venting. Use equipment or shielding to protect personnel from bursting containers.

Lower Explosive Limit:

1.0

Upper Explosive Limit:

12.8

6. ACCIDENTAL RELEASE MEASURES**Spill Procedures:**

Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE**Storage:**

Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F. Exposure to high temperatures may cause container to burst.

Handling:

Avoid contact with skin and eyes. Do not inhale vapors. Do not puncture or incinerate container. Do not use near heat, sparks or open flame. Extinguish all flames, pilot lights and heaters. Turn off stoves, electric tools and appliances, and other sources of ignition. Intentionally concentrating and inhaling the vapor may be harmful or fatal. Use only in a well ventilated area. Vapors may accumulate readily and may ignite explosively. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Eyes:**

Safety glasses with side shields.

Skin:

Not normally required when using an aerosol. Wear chemical resistant gloves if repeated skin contact occurs or causes irritation.

Ventilation:

General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.

Respiratory Protection:

An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance:**

Purple liquid

Odor:

SOLVENT ODOR

Boiling Point (°F):

Less than 0 degrees to 650 degrees F.

pH:

Does not apply

Solubility in Water:

Nil

Specific Gravity:

0.75

VOC Content(Wt.%):

42.84% by weight; 321 g/l

Vapor Pressure:

70-80 psig

Vapor Density (Air=1):

Heavier than air

Evaporation Rate:

Faster than ether

10. STABILITY AND REACTIVITY**Chemical Stability:**

Stable at normal conditions

Hazardous Polymerization:

WILL NOT OCCUR

Incompatibilities:

Strong oxidizers.

Conditions to Avoid:

Do not expose to heat or store at temperatures above 120 F.

Hazardous Products Formed by Fire or

Oxides of carbon. Irritating vapors.

Product Name: SA9 BATTERY PROTECTOR & SEALANT 5 OZ AE
Item No: 80370

Thermal Decomposition:

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations. This container may be recycled in aerosol recycling centers. Before offering for recycling, empty the can by using the product according to the label. If recycling is not available, wrap the container and discard in the trash.

US EPA Waste Number: D001 as per 40CFR 261.21

14. TRANSPORT INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: CONSUMER COMMODITY
Hazard Class: ORM-D
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Consumer Commodity
Class or Division: Class 9
UN/NA Number: UN 1950

IMDG

Proper Shipping: Aerosols, Limited Quantity
Hazard Class: Class 2.1
UN Number: UN 1950

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical
XYLENE, ETHYL BENZENE

CALIFORNIA PROP 65:

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 4, REACTIVITY 0
Estimated HMIS Classification: FLAMMABILITY 4, REACTIVITY 0, HEALTH 2

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

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Revision Date: 12/19/2000

Product Name: SA9 BATTERY PROTECTOR & SEALANT 5 OZ AE
Item No: 80370

Supplier:
Permatex, Inc.
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Hartford, CT 06106
Telephone: 1-87-Permatex
(877) 376-2839

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 161DA DECAL & PAINT STRIPPER 12 OZ AE
Item No: 80577
Product Type: Aerosol cleaner

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
DICHLOROMETHANE 75-09-2	55-65	50 ppm TWA; 174 mg/m ³ TWA	25 ppm TWA; 125 ppm STEL (15 min. TWA)
2-PROPANOL 67-63-0	5-15	400 ppm TWA; 983 mg/m ³ TWA	400 ppm TWA
BUTANE [1], ISOBUTANE [2] 106-97-8	1-10	800 ppm TWA; 1900 mg/m ³ TWA	800 ppm TWA; 1900 mg/m ³ TWA
PROPANE 74-98-6	5-15	simple asphyxiant; 2500 ppm TWA	1000 ppm TWA; 1800 mg/m ³ TWA
XYLENE, MIXTURE OF ISOMERS 1330-20-7	1-10	100 ppm TWA; 434 mg/m ³ TWA	100 ppm TWA; 435 mg/m ³ TWA
2-AMINOETHANOL 141-43-5	1-10	3 ppm TWA; 7.5 mg/m ³ TWA	3 ppm TWA; 6 mg/m ³ TWA
SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPH. 64742-88-7	1-10		400 ppm TWA; 1600 mg/m ³ dust

3. HAZARDS IDENTIFICATION

Toxicity:

Harmful if inhaled. Harmful if swallowed. May cause eye, skin and respiratory irritation. Vapors are anesthetic in high concentrations. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as "solvent" or "painter's syndrome"). Symptoms include fatigue, concentration difficulties, anxiety, depression, rapid mood swings, and short-term memory loss. Prolonged exposure may cause liver and kidney effects and may affect the central nervous system. Methylene chloride will have an effect on the cardiovascular system. Inhalation of high concentrations of Methylene chloride over long periods of time has caused cancer in laboratory animals. Deliberately concentrating and inhaling the vapor may be harmful or fatal.

Primary Routes of Entry:

Eye and skin contact, ingestion, inhalation.

Signs and Symptoms of Exposure:

Excessive overexposure may cause giddiness, dizziness, headache, nausea and in extreme cases, unconsciousness and respiratory depression. Inhaling may cause mild irritation to the nose, throat and respiratory tract and may result in central nervous system (CNS) depression. Overexposure may cause eye and skin redness.

Ingredients	Percent	NTP:	ACGIH Carcinogens	IARC:
DICHLOROMETHANE 75-09-2	55-65	Group 2: Suspect Carcinogen	A3 - Animal Carcinogen	Group 2B: Monograph 41, Supplement 7, Monograph 71; 1998
XYLENE, MIXTURE OF ISOMERS 1330-20-7	1-10	male rat-no evidence; female rat-no evidence; male mice-no evidence; female mice-no evidence	A4 - Not Classifiable as a Human Carcinogen	

Medical Conditions Recognized as Being Aggravated by Exposure: Heart disease, respiratory disorders, liver and kidney diseases, amenia, rhythm disorders of the heart.

Product Name: 161DA DECAL & PAINT STRIPPER 12 OZ AE
Item No: 80577

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Obtain medical attention immediately.
Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.
Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): Less than 0 degrees F. Based on propellant.
Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus. Keep containers cool. Use equipment or shielding required to protect against bursting or venting of containers. Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool.
Hazardous Products Formed by Fire or Thermal Decomposition: Hydrogen chloride. Carbon Monoxide and Carbon Dioxide.
Unusual Fire/Explosion Hazards: Contents under pressure. Exposure to temperatures over 120 degrees F. may cause bursting or venting. Use equipment or shielding to protect personnel from bursting containers.
Lower Explosive Limit: 1.0
Upper Explosive Limit: 12.7

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Eliminate all sources of ignition. Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F.
Handling: Avoid contact with skin and eyes. Do not use near heat, sparks or open flame. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Use only in a well ventilated area. Intentionally concentrating and inhaling the vapor may be harmful or fatal. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses with side shields or chemical goggles.
Skin: Rubber or plastic gloves
Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.
Respiratory Protection: Use approved NIOSH respiratory protection if TLV exceeded..... Or over exposure is likely.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear liquid
Odor: SOLVENT ODOR
Boiling Point (°F): <0 to 395 degrees F.
pH: Not determined
Solubility in Water: Nil
Specific Gravity: 0.97
VOC Content(Wt.%): 33.3% by weight
Vapor Pressure: Not Determined
Vapor Density (Air=1): Heavier than air
Evaporation Rate: Faster than ether

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatibilities: Active metals.
Conditions to Avoid: Do not expose to heat or store at temperatures above 120 F. Keep away from heat, sparks and flame.
Hazardous Products Formed by Fire or Hydrogen chloride. Carbon Monoxide and Carbon Dioxide.

Product Name: 161DA DECAL & PAINT STRIPPER 12 OZ AE
Item No: 80577

Thermal Decomposition:

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations. This container may be recycled in aerosol recycling centers. Before offering for recycling, empty the can by using the product according to the label. If recycling is not available, wrap the container and discard in the trash.

US EPA Waste Number: D001/F002 - Hazardous waste per 40CFR 261.21 and 261.31 (Methylene Chloride)

14. TRANSPORT INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: CONSUMER COMMODITY

Hazard Class: ORM-D

UN/ID Number: None

Marine Pollutant: None

IATA

Proper Shipping Name: Aerosols, flammable, containing substances in Division 6.1, Packing Group III

Class or Division: Division 2.1, Subsidiary Risk 6.1

UN/NA Number: UN 1950

IMDG

Proper Shipping: Aerosols, Limited Quantity

Hazard Class: Class 2.1

UN Number: UN 1950

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
 DICHLOROMETHANE, XYLENE

CALIFORNIA PROP 65:

WARNING: This product contains a chemical known to the State of California to cause cancer.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 3, FLAMMABILITY 4, REACTIVITY 1

Estimated HMIS Classification: FLAMMABILITY 4, REACTIVITY 1, HEALTH 3

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

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Revision Date: 09/27/2001
Revision Number: 3

Product Name: 161DA DECAL & PAINT STRIPPER 12 OZ AE
Item No: 80577

Supplier:
Permatex, Inc.
10 Columbus Blvd.
Hartford, CT 06106
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(877) 376-2839

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 14H THREAD SEALANT W/TEFLON .25PT
Item No: 80632
Product Type: Sealant

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
2-PROPANOL 67-63-0	35-45	400 ppm TWA; 983 mg/m ³ TWA	400 ppm TWA
TALC 14807-96-6	20-30	2 mg/m ³ respir. dust TWA	2 mg/m ³ TWA
CASTOR OIL 8001-79-4	20-30		
VINYL TERPOLYMER 27360-07-2	5-15	10 mg/m ³ TWA total dust	15 mg/m ³ TWA total dust; 5 mg/m ³ respir dust
TITANIUM DIOXIDE 13463-67-7	1-10	10 mg/m ³	15 mg/m ³ total dust

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye, skin and respiratory irritation.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.
Signs and Symptoms of Exposure: Excessive accidental exposure may cause headache, dizziness, nausea and mild respiratory irritation. Overexposure may cause eye and skin redness.

Ingredients	Percent	NTP:	ACGIH Carcinogens	IARC:
TITANIUM DIOXIDE 13463-67-7	1-10			Group 3; Vol 47, pg 307, 1989

Medical Conditions Recognized as Being Aggravated by Exposure: Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.
Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.
Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): 74 degrees F. Method: Tag Closed Cup
Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus. Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool.
Hazardous Products Formed by Fire or Thermal Decomposition: Fluoride compounds

Product Name: 14H THREAD SEALANT W/TEFLON .25PT
Item No: 80632

Unusual Fire/Explosion Hazards: Closed containers may rupture or explode when exposed to extreme heat.
Lower Explosive Limit: 2.3
Upper Explosive Limit: 12.7

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Eliminate all sources of ignition. Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Residues may be cleaned up with isopropyl alcohol.

7. HANDLING AND STORAGE

Storage: Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F.
Handling: Avoid contact with skin and eyes. Do not inhale vapors. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses or goggles.
Skin: Rubber or plastic gloves
Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.
Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White paste
Odor: Alcohol Odor
Boiling Point (°F): 180 degrees F.
pH: Does not apply
Solubility in Water: Partial
Specific Gravity: 1.12
VOC Content(Wt.%): 37.9% by weight; 425.5 g/l
Vapor Pressure: 33 mm Hg @ 68 degrees F.
Vapor Density (Air=1): 2.07
Evaporation Rate: 7.7 (ether = 1)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatibilities: Strong oxidizers.
Conditions to Avoid: Do not expose to heat or store at temperatures above 120 F.
Hazardous Products Formed by Fire or Thermal Decomposition: Fluoride compounds

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.
US EPA Waste Number: D001 as per 40CFR 261.21

14. TRANSPORT INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Consumer Commodity (Not more than five liters)
Hazard Class: ORM-D
UN/ID Number: None

Product Name: 14H THREAD SEALANT W/TEFLON .25PT
Item No: 80632

Marine Pollutant: None
IATA
Proper Shipping Name: Consumer Commodity (Not more than 500 ml)
Class or Division: Class 9
UN/NA Number: ID 8000
IMDG
Proper Shipping: Adhesives, Limited Quantity
Hazard Class: Class 3.3
UN Number: UN 1133

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
NONE

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 3, REACTIVITY 0
Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 3, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

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Revision Date: 03/02/2001

Revision Number: 1

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 10 Columbus Blvd.
 Hartford, CT 06106 USA
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 (877) 376-2839
 Emergency: 800-255-3924

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 133MA ANTI-SEIZE LUBRICANT 8.5 OZ AE
 Item No: 81464
 Product Type: Aerosol lubricant

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
HEPTANE 142-82-5	35-45	400 ppm TWA; 1640 mg/m ³ TWA	500 ppm TWA; 2000 mg/m ³ TWA
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC 64742-54-7	5-15	5mg/m ³ TWA	5mg/m ³ TWA
PROPANE 74-98-6	5-15	simple asphyxiant; 2500 ppm TWA	1000 ppm TWA; 1800 mg/m ³ TWA
BUTANE [1], ISOBUTANE [2] 106-97-8	5-15	800 ppm TWA; 1900 mg/m ³ TWA	800 ppm TWA; 1900 mg/m ³ TWA
GRAPHITE 7782-42-5	1-10	2 mg/m ³ respir.dust	5 mg/m ³ TWA respir.; 15mg/m ³ total

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye, skin and respiratory irritation. Long term exposure to high concentrations of vapor may cause lung, liver or kidney damage. Intentional misuse by concentrating and inhaling the vapor may be harmful or fatal. May cause central nervous system (CNS) depression.

Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.

Signs and Symptoms of Exposure: Excessive accidental exposure may cause headache, dizziness, nausea and mild respiratory irritation. May cause redness to eyes and irritation to nasal passages.

Medical Conditions Recognized as Being Aggravated by Exposure: Persons with preexisting respiratory, liver, kidney, eye or skin diseases may be adversely affected.

4. FIRST AID MEASURES

Ingestion: If swallowed, do NOT induce vomiting. Give victim two glasses of water. Call a physician immediately. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): Less than 0 degrees F. Based on propellant

Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.

Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus. Keep containers cool. Use equipment or shielding required to protect against bursting or venting of containers. Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool. None anticipated

Hazardous Products Formed by Fire or Thermal Decomposition:

Unusual Fire/Explosion Hazards: Contents under pressure. Exposure to temperatures over 120 degrees F. may cause bursting or venting. Use equipment or shielding to protect personnel from bursting containers.

Lower Explosive Limit: 1.0

Upper Explosive Limit: 10.0

Product Name: 133MA ANTI-SEIZE LUBRICANT 8.5
OZ AE

Item No: 81464

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F. Exposure to high temperatures may cause container to burst.

Handling: Do not use near heat, sparks or open flame. Vapors may accumulate readily and may ignite explosively. Avoid contact with skin and eyes. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Use only in a well ventilated area. Extinguish all flames, pilot lights and heaters. Turn off stoves, electric tools and appliances, and other sources of ignition. Do not puncture or incinerate container. Intentionally concentrating and inhaling the vapor may be harmful or fatal.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses with side shields.

Skin: Chemical resistant gloves.

Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.

Respiratory Protection: Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Gray liquid

Odor: SOLVENT ODOR

Boiling Point (°F): Less than 0 degrees F. to 212 degrees F.

pH: Does not apply

Solubility in Water: Not available

Specific Gravity: 0.73

VOC Content(Wt.%): 64% by weight; 461 g/l

Vapor Pressure: Not Determined

Vapor Density (Air=1): >1 (air = 1)

Evaporation Rate: Faster than ether

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions

Hazardous Polymerization: WILL NOT OCCUR

Incompatibilities: Strong oxidizers.

Conditions to Avoid: Do not expose to heat or store at temperatures above 120 F. Keep away from heat, sparks and flame.

Hazardous Products Formed by Fire or Thermal Decomposition: None anticipated

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations. This container may be recycled in aerosol recycling centers. Before offering for recycling, empty the can by using the product according to the label. If recycling is not available, wrap the container and discard in the trash.

US EPA Waste Number: D001 as per 40CFR 261.21

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: CONSUMER COMMODITY

Hazard Class: ORM-D

UN/ID Number: None

Product Name: 133MA ANTI-SEIZE LUBRICANT 8.5
OZ AE

Item No: 81464

Marine Pollutant: None

IATA

Proper Shipping Name: Aerosols, flammable
Class or Division: Class 2.1
UN/NA Number: UN 1950

IMDG

Proper Shipping: Aerosols, Limited Quantity
Hazard Class: Class 2.1
UN Number: UN 1950

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

SARA 313 Information

NONE

CALIFORNIA PROP 65:

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA Inventory Status:

Listed on Inventory: YES All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 1, FLAMMABILITY 4, REACTIVITY 0

Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 4, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Denise Boyd, Health and Safety Manager
Company: Permatex, Inc. 10 Columbus Blvd. Hartford, CT USA
06106

Revision Date: 11/27/2000
Revision Number: 4

Telephone Number: 1-87-Permatex (877) 376-2839

Supplier:
Permatex, Inc.
10 Columbus Blvd.
Hartford, CT 06106
Telephone: 1-87-Permatex
(877) 376-2839

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: NON-CHLORINATED BRAKE & PARTS CLEANER 14.5 OZ AE
Item No: 82220
Product Type: Aerosol cleaner

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
ACETONE 67-64-1	<60	500 ppm TWA; 1188 mg/m ³ TWA	1000 ppm TWA; 2400 mg/m ³ TWA
HEPTANE 142-82-5	<20	400 ppm TWA; 1640 mg/m ³ TWA	500 ppm TWA; 2000 mg/m ³ TWA
XYLENE, MIXTURE OF ISOMERS 1330-20-7	<18	100 ppm TWA; 434 mg/m ³ TWA	100 ppm TWA; 435 mg/m ³ TWA
PROPANE 74-98-6	<15	simple asphyxiant; 2500 ppm TWA	1000 ppm TWA; 1800 mg/m ³ TWA
ETHYL BENZENE 100-41-4	1-10	100 ppm TWA; 434 mg/m ³ TWA	100 ppm TWA; 435 mg/m ³ TWA

3. HAZARDS IDENTIFICATION

Toxicity:

May cause eye, skin and respiratory irritation. Aspiration hazard if swallowed. Intentional misuse by concentrating and inhaling the vapor may be harmful or fatal. Long term exposure to high concentrations of vapor may cause lung, liver or kidney damage. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as "solvent" or "painter's syndrome"). Symptoms include fatigue, concentration difficulties, anxiety, depression, rapid mood swings, and short-term memory loss. Eye and skin contact, ingestion, inhalation.

Primary Routes of Entry:

Signs and Symptoms of Exposure:

Excessive overexposure may cause giddiness, dizziness, headache, nausea and in extreme cases, unconsciousness and respiratory depression. May cause redness to eyes and irritation to nasal passages.

Ingredients	Percent	NTP:	ACGIH Carcinogens	IARC:
ACETONE 67-64-1	<60		A4 - Not Classifiable as a Human Carcinogen	
XYLENE, MIXTURE OF ISOMERS 1330-20-7	<18	male rat-no evidence; female rat-no evidence; male mice-no evidence; female mice-no evidence	A4 - Not Classifiable as a Human Carcinogen	Group 3: Vol. 71, pg 1189, 1999
ETHYL BENZENE 100-41-4	1-10			Group 2: Vol. 77, pg 227, 2000

Medical Conditions Recognized as Being Aggravated by Exposure: Heart disease, respiratory disorders, liver and kidney diseases, anemia, rhythm disorders of the heart.

4. FIRST AID MEASURES

Ingestion:

If swallowed, do NOT induce vomiting. Give victim two glasses of water. Call a physician immediately. Never give anything by mouth to an unconscious person.

Inhalation:

If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Contact:

Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical

Product Name: NON-CHLORINATED BRAKE & PARTS CLEANER 14.5 OZ AE
Item No: 82220

Eye Contact: attention.
 In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): -155 degrees F. Based on propellant
Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus. Keep containers cool. Use equipment or shielding required to protect against bursting or venting of containers. Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool.
Hazardous Products Formed by Fire or Thermal Decomposition: Oxides of carbon. Irritating vapors.
Unusual Fire/Explosion Hazards: Contents under pressure. Exposure to temperatures over 120 degrees F. may cause bursting or venting. Use equipment or shielding to protect personnel from bursting containers.
Lower Explosive Limit: 1.8
Upper Explosive Limit: 9.5

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F. Exposure to high temperatures may cause container to burst.
Handling: Avoid contact with skin and eyes. Do not inhale vapors. Do not puncture or incinerate container. Do not use near heat, sparks or open flame. Extinguish all flames, pilot lights and heaters. Turn off stoves, electric tools and appliances, and other sources of ignition. Intentionally concentrating and inhaling the vapor may be harmful or fatal. Use only in a well ventilated area. Vapors may accumulate readily and may ignite explosively. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses with side shields.
Skin: Not normally required when using an aerosol. Wear chemical resistant gloves if repeated skin contact occurs or causes irritation.
Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product.
Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear liquid
Odor: SOLVENT ODOR
Boiling Point (°F): 133 degrees F.
pH: Does not apply
Solubility in Water: Nil
Specific Gravity: 0.78-0.80
VOC Content(Wt.%): 44% by weight
Vapor Pressure: 108 psig
Vapor Density (Air=1): Heavier than air
Evaporation Rate: 14.4 (butyl acetate = 1)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatibilities: Strong oxidizers.
Conditions to Avoid: Do not expose to heat or store at temperatures above 120 F.
Hazardous Products Formed by Fire or Thermal Decomposition: Oxides of carbon. Irritating vapors.

Product Name: NON-CHLORINATED BRAKE & PARTS CLEANER 14.5 OZ AE
Item No: 82220

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations. This container may be recycled in aerosol recycling centers. Before offering for recycling, empty the can by using the product according to the label. If recycling is not available, wrap the container and discard in the trash.

US EPA Waste Number: D001 as per 40CFR 261.21

14. TRANSPORT INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: CONSUMER COMMODITY
Hazard Class: ORM-D
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Aerosols, flammable
Class or Division: Class 2.1
UN/NA Number: UN 1950

IMDG

Proper Shipping: Aerosols, Limited Quantity
Hazard Class: Class 2.1
UN Number: UN 1950

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
 XYLENE, ETHYL BENZENE

CALIFORNIA PROP 65:

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 2, FLAMMABILITY 4, REACTIVITY 0
Estimated HMIS Classification: HEALTH 2, FLAMMABILITY 4, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.
 HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Denise Boyd Health and Safety Manager
Company: Permatex, Inc. 10 Columbus Blvd. Hartford, CT 06106
Telephone Number: 1-87-Permatex (877) 376-2839
Revision Date: 03/08/2001
Revision Number: 1

**NOVA Chemicals®****Material Safety Data Sheet****Material Name: Impact Polystyrene, Natural Grades**

MSDS ID: NOVA-0056

Section 1 - Product and Company Identification**Synonyms:** Impact modified polystyrene, HIPS**Chemical Name:** Polystyrene**Chemical Family:** Polymer**Material Use:** Petrochemical industry: Plastics**Chemical Formula:** (C₈H₈ C₄H₆)_xNOVA Chemicals Inc.
1550 Coraopolis Heights Road
Moon Township, PA 15108**In case of Emergency****1-800-561-6882, 1-403-314-8767 (NOVA Chemicals)(24 hours)****1-800-424-9300 (CHEMTREC-USA)****1-613-998-6666 (Canutec-Canada)(24 hours)****Section 2 - Composition / Information on Ingredients**

CAS #	Component	Percent by Wt.
9003-55-8	Styrene-Butadiene polymer	94-100

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Nuisance particulates.

Additional Information

This product is not considered hazardous under 29 CFR 1910.1200 (Hazard Communication). This material is not a controlled product under Canadian WHMIS regulations.

See Section 8 for applicable exposure limits. See Section 11 for applicable toxicity data.

Section 3 - Hazards Identification**HMIS Ratings: Health: 0* Fire: 1 Reactivity: 0**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings: Health: 0 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Emergency Overview

Product is a white, inert, solid bead or pellet with slight odor. Nonflammable, but will burn on prolonged exposure to flame or high temperature. Slipping hazard.

Potential Health Effects: Eyes

Contact with hot or molten material may cause severe thermal burns. Contact with eye may cause mechanical irritation.

Potential Health Effects: Skin

Contact with hot or molten material may cause severe thermal burns. Mechanical rubbing may increase skin irritation.

Potential Health Effects: Ingestion

Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

Potential Health Effects: Inhalation

Fumes released during thermal processing may cause irritation to the respiratory system.

Section 4 - First Aid Measures**First Aid: Eyes**

Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention.

Material Safety Data Sheet

Material Name: Impact Polystyrene, Natural Grades

MSDS ID: NOVA-0056

First Aid: Skin

Wash the affected skin gently and thoroughly with running water and non-abrasive soap. Seek medical attention if symptoms develop or persist.

First Aid: Hazardous Skin Contact

In case of contact with molten product, cool rapidly with water and seek immediate medical attention. DO NOT attempt to remove molten product, or molten product that has cooled, from skin because skin without medical assistance.

First Aid: Inhalation

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

First Aid: Hazardous Inhalation

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform rescue breathing. **WARNING:** It may be dangerous to the person providing aid to perform rescue breathing when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

First Aid: Ingestion

DO NOT induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform rescue breathing. Seek immediate medical attention.

First Aid: Notes to Physician

Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5 - Fire Fighting Measures

Flammability Class:	Nonflammable	Flash Point:	345° to 360°C (653° to 680°F) (Combustible Flash Ignition Temperature)
Upper flammability limit:	Not available	Lower flammability limit:	Not available
Auto ignition:	427°C (800°F)		

General Fire Hazards

Nonflammable, but will burn on prolonged exposure to flame or high temperature.

Hazardous Combustion Products

Styrene, butadiene, carbon dioxide, carbon monoxide.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog or water spray. Do not use direct water stream.

Fire Fighting Equipment/Instructions

Full-face, NIOSH-approved self-contained breathing apparatus and appropriate protective clothing must be worn by all individuals required to enter the hazard area.

Section 6 - Accidental Release Measures

Evacuation Procedures

Keep unnecessary personnel out of the area.

Small Spills

Spilled product may create a dangerous slipping hazard. Use appropriate tools to put the spilled solid in an appropriate waste disposal container. Prevent entry into sewers, drains, underground or confined spaces, water intakes, and waterways.

Large Spills

Sweep up or gather material and place in appropriate container for disposal. Prevent entry into sewers, drains, underground or confined spaces, water intakes, and waterways.

Special Procedures

Contact local police and appropriate emergency telephone numbers provided in Section 1. Ensure statutory and regulatory reporting requirements in the applicable jurisdiction are met. Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed.

Material Safety Data Sheet**Material Name: Impact Polystyrene, Natural Grades**

MSDS ID: NOVA-0056

Section 7 - Handling and Storage**Handling Procedures**

Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Handle in contained and properly designed equipment systems. Keep away from uncontrolled heat. Ground all material handling and transfer equipment to dissipate build-up of static electricity. Keep handling areas free of loose pellets and dust generation and accumulation. Spilled product may create a dangerous slipping hazard. Keep from contact with strong oxidizing materials.

Incompatibility

Not resistant to oxidizing agents, dissolves in organic solvents.

Storage Procedures

Storage area should be clearly identified, well-illuminated, clear of obstruction and accessible only to trained and authorized personnel. Store in grounded, properly designed and approved vessels and away from incompatible materials. Store and use away from heat, sparks, open flame, or any other ignition source. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically-safe electrical systems. Small amounts of fines or dust contained in granular resins may accumulate in material handling systems. If permitted to accumulate, these fines or dust can, under certain conditions, pose an explosion hazard. Every effort should be made to prevent the suspension, concentration or accumulation of fines or dusts in, or around, material handling systems. Further information can be obtained from NFPA-654. "Standard for the Prevention of Fire and Dust Explosions in Chemical, Dye, Pharmaceutical and Plastics Industries." DO NOT enter filled bulk containers and attempt to walk over product, due to risk of slipping and suffocation. Use a fall arrest system when working near open bulk storage containers.

Section 8 - Exposure Controls / Personal Protection**Exposure Guidelines****A: General Material Information**

Follow all applicable exposure limits.

B: Component Exposure Limits

ACGIH and OSHA exposure limit lists have been checked for those components with CAS registry numbers.

Styrene-Butadiene polymer (9003-55-8)

ACGIH: 10 mg/m³ TWA (inhalable fraction, particulate matter containing no asbestos and <1% crystalline silica); 3 mg/m³ TWA (respirable fraction, particulate matter containing no asbestos and <1% crystalline silica) (related to Particulates not otherwise specified (PNOS))

OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction) (related to Particulates not otherwise regulated)

Engineering Controls

If user operations generate dusts, mists, or fumes, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT**Personal Protective Equipment: Eyes/Face**

Wear safety glasses during normal handling. Wear full face shield during thermal processing.

Personal Protective Equipment: Skin/Hands/Feet

Normal work clothing (long sleeved shirts and long pants) is recommended. Impervious gloves should be worn when handling product.

Personal Protective Equipment: Respiratory

When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate NIOSH approved respiratory protection must be provided.

Personal Protective Equipment: General

Personal protective equipment (PPE) must not be considered a long term solution to exposure control. PPE must be accompanied by employer programs to properly select, maintain, clean, fit and use equipment. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers and applicable regulations to ensure adequate protection.

Material Safety Data Sheet**Material Name: Impact Polystyrene, Natural Grades**

MSDS ID: NOVA-0056

Section 9 - Physical & Chemical Properties

Physical state and appearance:	White solid beads or pellets	Color:	White
Odor:	Slight odor	pH:	Not applicable
Vapor Pressure:	Not applicable	Vapor Density (Air=1):	Not applicable
Boiling Point:	Not applicable	Melting Point:	105°C to 135°C (221°F to 275°F)
Solubility (H₂O):	Insoluble	Specific Gravity (Water=1):	1.04 g/cc, 104 kg/m
Softening Point:	79°C to 127°C (174°F to 261°F)	Evaporation Rate (n-Butyl Acetate=1):	Not applicable

Section 10 - Stability & Reactivity Information**Chemical Stability**

This is a stable material.

Instability

Decomposition temperature: 300°C (572°F)

Chemical Stability: Conditions to Avoid

Avoid processing material over 300°C (572°F).

Incompatibility

Not resistant to oxidizing agents, dissolves in organic solvents.

Hazardous Polymerization

Will not occur.

Corrosivity

Not expected to be corrosive.

Hazardous Decomposition

Styrene, butadiene, carbon dioxide, carbon monoxide

Section 11 - Toxicological Information**Acute Toxicity****A: General Material Information**

Polystyrene homopolymer may be irritating to the eyes. Skin contact with molten or heated material can cause burns.

B: Acute Toxicity - LD50/LC50

No LD50/LC50's are available for this product's components.

Chronic Toxicity**A: General Material Information**

No additional information available.

B: Carcinogenic Effects

ACGIH, IARC, OSHA, and NTP carcinogen lists have been checked for those components with CAS registry numbers.

Styrene-Butadiene polymer (9003-55-8)

IARC: Supplement 7, 1987; Monograph 19, 1979 (Group 3 (not classifiable))

Section 12 - Ecological Information**Ecotoxicity****A: General Material Information**

The information below is based on a knowledge of the components and the ecotoxicity of similar products. Sewer/waterway obstruction; marine life may ingest pellets, which may obstruct their digestive tract. Product is expected to be non-toxic, but small particles may have physical effects on aquatic and terrestrial organisms.

Environmental Fate

See information below.

Material Safety Data Sheet**Material Name: Impact Polystyrene, Natural Grades**

MSDS ID: NOVA-0056

Mobility

Sinks in water.

Persistence/Degradability

Pellets may accumulate in the digestive systems of birds and aquatic life, causing injury and possible death. Do not allow product to enter sewer or waterways. Expected to be inherently non-biodegradable.

Bioaccumulation/Accumulation

Not expected to bioaccumulate significantly.

Section 13 - Disposal Considerations**North America Waste Number & Descriptions****A: General Material Information**

This product, if discarded, is not expected to be considered a hazardous waste according to US RCRA and Canadian regulations. Check Local, State, Federal, and Provincial Environmental Regulations prior to disposal. Preferred disposal methods are: 1) clean and reuse if possible; 2) contact resin broker; 3) contact plastic recycler; 4) incinerate with waste heat recovery and/or 5) landfill. Reuse, recycling, storing, transportation, and disposal must be in accordance with applicable federal, state/provincial and local regulation. DO NOT ATTEMPT TO DISPOSE OF BY UNCONTROLLED IGNITION.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Section 14 - Transportation Information**US DOT Information****Shipping Name:** This material is not regulated as a hazardous material for transportation.**Canadian TDG Information****Shipping Name:** This material is not regulated as a hazardous material for transportation.**International Air Transport Association (IATA) Regulations****Shipping Name:** This material is not regulated as a hazardous material for transportation.**International Maritime Dangerous Goods (IMDG) Code****Shipping Name:** This material is not regulated as a hazardous material for transportation.**Section 15 - Regulatory Information****U.S. Federal Regulations****A: General Material Information**

No information available.

B: Component Analysis

None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

C: Component Analysis - U.S. State

Some components (including those present only in trace quantities, and therefore not listed in this document) may be included on the Right To Know lists of other U.S. states. The reader is therefore cautioned to contact his or her NOVA Chemicals representative or NOVA Chemicals' Product Integrity group for further U.S. State Right-To-Know information.

None of this products components are listed on the state lists from NJ or PA.

D: Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

U.S. State Regulations

Other U.S. state regulations may apply. Check individual U.S. state requirements.

Material Safety Data Sheet**Material Name: Impact Polystyrene, Natural Grades**

MSDS ID: NOVA-0056

Canadian Provincial Regulations

No information available.

Other Regulations**A: General Material Information**

The monomer is listed by EINECS for polystyrene homopolymer.

B: Component Analysis - Inventory Status

Component	CAS #	US - TSCA	CANADA - DSL	EU - EINECS
Styrene-Butadiene polymer	9003-55-8	Yes	Yes	No

Canadian Environmental Protection Act (CEPA): This product is on the Domestic Substances List (DSL), and is acceptable for use under the provisions of CEPA.

WHMIS Classification

Workplace Hazardous Materials Information Systems (WHMIS): This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations, and the MSDS contains all of the information required by the Controlled Products Regulations. Not controlled under WHMIS (Canada).

Section 16 - Other Information**Label Information**

PRECAUTIONS: Product is a white, inert, solid bead or pellet with slight odor. Nonflammable, but will burn on prolonged exposure to flame or high temperature. Slipping hazard.

FIRST AID:

SKIN: For contact with molten product, do not remove any material or clothing adhering to the skin. Flush the burned area immediately with large amounts of cold water. If it is possible, submerge the area in cold water. Immediately seek medical attention or contact a physician.

EYES: Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention.

INHALATION: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform rescue breathing. **WARNING:** It may be dangerous to the person providing aid to perform rescue breathing when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

INGESTION: DO NOT induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform rescue breathing. Seek immediate medical attention.

IN CASE OF A LARGE SPILL: Spilled product may create a dangerous slipping hazard. Use appropriate tools to put the spilled solid in an appropriate waste disposal container.

References

Not available

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; BOD = Biochemical Oxygen Demand; CAS = Chemical Abstracts Service; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CPR = Controlled Products Regulations; DOT = Department of Transportation; DSL = Domestic Substances List; EINECS = European Inventory of Existing Commercial Substances; EPA = Environmental Protection Agency; EU = European Union; FDA = Food and Drug Administration; IARC = International Agency for Research on Cancer; IDL = Ingredient Disclosure List; Kow = Octanol/water partition coefficient; NIOSH = National Institute for Occupational Safety and Health; NJTSR = New Jersey Trade Secret Registry; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; RCRA = Resource Conservation and Recovery Act; SARA = Superfund Amendments and Reauthorization Act; TDG = Transportation of Dangerous Goods; TSCA = Toxic Substances Control Act.

Validated by Product Integrity Group on 06/26/02 Verified by Product Steward.

Contact: Product Integrity Group
NOVA Chemicals Corporation

Material Safety Data Sheet

Material Name: Impact Polystyrene, Natural Grades

MSDS ID: NOVA-0056

6711 Mississauga Road, Suite 200
Mississauga, Ontario L5N 2W3
Contact Phone: 905-542-6980

Other Information

Notice to Reader

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This is the end of MSDS # NOVA-0056



NOVA Chemicals®

Material Safety Data Sheet

Material Name: Crystal Polystyrene, Natural Grades

MSDS ID: NOVA-0044

Section 1 - Product and Company Identification

Synonyms: Polystyrene resin, Polystyrene homopolymer, DYLENE®

Chemical Name: Polystyrene

Chemical Family: Polymer

Material Use: Thermoplastic resin

Chemical Formula: (C₈H₈)_x

NOVA Chemicals Inc.
1550 Coraopolis Heights Road
Moon Township, PA 15108

In case of Emergency

1-800-561-6682, 1-403-314-8767 (NOVA Chemicals)(24 hours)
1-800-424-9300 (CHEMTREC-USA)
1-613-996-6666 (Canutec-Canada)(24 hours)

Section 2 - Composition / Information on Ingredients

CAS #	Component	Percent by Wt.
9003-53-6	Polystyrene	94-100

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Nuisance particulates.

Additional Information

This product is not considered hazardous under 29 CFR 1910.1200 (Hazard Communication). This material is not a controlled product under Canadian WHMIS regulations.

See Section 8 for applicable exposure limits. See Section 11 for applicable toxicity data.

Section 3 - Hazards Identification

HMIS Ratings: Health: 0 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings: Health: 0 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Emergency Overview

Product is a clear to white, inert, solid bead or pellet with slight odor. Nonflammable, but will burn on prolonged exposure to flame or high temperature. Slipping hazard.

Potential Health Effects: Eyes

Contact with hot or molten material may cause severe thermal burns. Contact with eye may cause mechanical irritation.

Potential Health Effects: Skin

Contact with hot or molten material may cause severe thermal burns. Mechanical rubbing may increase skin irritation.

Potential Health Effects: Ingestion

Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

Potential Health Effects: Inhalation

Fumes released during thermal processing may cause irritation to the respiratory system.

Section 4 - First Aid Measures

First Aid: Eyes

Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention.

Material Safety Data Sheet

Material Name: Crystal Polystyrene, Natural Grades

MSDS ID: NOVA-0044

First Aid: Skin

Wash the affected skin gently and thoroughly with running water and non-abrasive soap. Seek medical attention if symptoms develop or persist.

First Aid: Hazardous Skin Contact

In case of contact with molten product, cool rapidly with water and seek immediate medical attention. DO NOT attempt to remove molten product, or molten product that has cooled, from skin because skin without medical assistance.

First Aid: Inhalation

Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

First Aid: Hazardous Inhalation

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform rescue breathing. **WARNING:** It may be dangerous to the person providing aid to perform rescue breathing when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

First Aid: Ingestion

DO NOT induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform rescue breathing. Seek immediate medical attention.

First Aid: Notes to Physician

Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5 - Fire Fighting Measures

Flammability Class:	Nonflammable	Flash Point:	345° to 360° C (653° to 680° F) (Combustible Flash Ignition Temperature)
Upper flammability limit:	Not available	Lower flammability limit:	Not available
Auto Ignition:	427° C (800° F)		

General Fire Hazards

Nonflammable, but will burn on prolonged exposure to flame or high temperature.

Hazardous Combustion Products

Styrene, carbon dioxide, carbon monoxide.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog or water spray. Do not use direct water stream.

Fire Fighting Equipment/Instructions

Full-face, NIOSH-approved self-contained breathing apparatus and appropriate protective clothing must be worn by all individuals required to enter the hazard area.

Section 6 - Accidental Release Measures

Evacuation Procedures

Keep unnecessary personnel out of the area.

Small Spills

Spilled product may create a dangerous slipping hazard. Use appropriate tools to put the spilled solid in an appropriate waste disposal container. Prevent entry into sewers, drains, underground or confined spaces, water intakes, and waterways.

Large Spills

Sweep up or gather material and place in appropriate container for disposal. Prevent entry into sewers, drains, underground or confined spaces, water intakes, and waterways.

Special Procedures

Contact local police and appropriate emergency telephone numbers provided in Section 1. Ensure statutory and regulatory reporting requirements in the applicable jurisdiction are met. Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed.

Material Safety Data Sheet**Material Name: Crystal Polystyrene, Natural Grades**

MSDS ID: NOVA-0044

Section 7 - Handling and Storage**Handling Procedures**

Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Handle in contained and properly designed equipment systems. Keep away from uncontrolled heat. Ground all material handling and transfer equipment to dissipate build-up of static electricity. Keep handling areas free of loose pellets and dust generation and accumulation. Spilled product may create a dangerous slipping hazard. Keep from contact with strong oxidizing materials.

Incompatibility

Not resistant to oxidizing agents, dissolves in organic solvents.

Storage Procedures

Storage area should be clearly identified, well-illuminated, clear of obstruction and accessible only to trained and authorized personnel. Store in grounded, properly designed and approved vessels and away from incompatible materials. Store and use away from heat, sparks, open flame, or any other ignition source. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically-safe electrical systems. Small amounts of fines or dust contained in granular resins may accumulate in material handling systems. If permitted to accumulate, these fines or dust can, under certain conditions, pose an explosion hazard. Every effort should be made to prevent the suspension, concentration or accumulation of fines or dusts in, or around, material handling systems. Further information can be obtained from NFPA-654. "Standard for the Prevention of Fire and Dust Explosions in Chemical, Dye, Pharmaceutical and Plastics Industries." DO NOT enter filled bulk containers and attempt to walk over product, due to risk of slipping and suffocation. Use a fall arrest system when working near open bulk storage containers.

Section 8 - Exposure Controls / Personal Protection**Exposure Guidelines****A: General Material Information**

Follow all applicable exposure limits.

B: Component Exposure Limits

ACGIH and OSHA exposure limit lists have been checked for those components with CAS registry numbers.

Polystyrene (9003-53-6)

ACGIH: 10 mg/m³ TWA (inhalable fraction, particulate matter containing no asbestos and <1% crystalline silica); 3 mg/m³ TWA (respirable fraction, particulate matter containing no asbestos and <1% crystalline silica) (related to Particulates not otherwise specified (PNOS))

OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction) (related to Particulates not otherwise regulated)

Engineering Controls

If user operations generate dusts, mists, or fumes, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT**Personal Protective Equipment: Eyes/Face**

Wear safety glasses during normal handling. Wear full face shield during thermal processing.

Personal Protective Equipment: Skin/Hands/Feet

Normal work clothing (long sleeved shirts and long pants) is recommended. Impervious gloves should be worn when handling product.

Personal Protective Equipment: Respiratory

When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate NIOSH approved respiratory protection must be provided.

Personal Protective Equipment: General

Personal protective equipment (PPE) must not be considered a long term solution to exposure control. PPE must be accompanied by employer programs to properly select, maintain, clean, fit and use equipment. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers and applicable regulations to ensure adequate protection.

Material Safety Data Sheet**Material Name: Crystal Polystyrene, Natural Grades**

MSDS ID: NOVA-0044

Section 9 - Physical & Chemical Properties

Physical state and appearance:	Clear to white solid bead or pellet	Color:	Clear to white
Odor:	Slight odor	pH:	Not applicable
Vapor Pressure:	Not applicable	Vapor Density (Air=1):	Not applicable
Boiling Point:	Not applicable	Melting Point:	105°C to 135°C (221°F to 275°F)
Solubility (H2O):	Insoluble	Specific Gravity (Water=1):	1.04 g/cc, 104 kg/m
Evaporation Rate (n-Butyl Acetate=1):	79°C to 127°C (174°F to 261°F)		

Section 10 - Stability & Reactivity Information**Chemical Stability**

This is a stable material.

Instability

Decomposition temperature: 300°C (572°F)

Chemical Stability: Conditions to Avoid

Avoid processing material over 300°C (572°F).

Incompatibility

Not resistant to oxidizing agents, dissolves in organic solvents.

Hazardous Polymerization

Will not occur.

Corrosivity

Not expected to be corrosive.

Hazardous Decomposition

Styrene, carbon dioxide, carbon monoxide

Section 11 - Toxicological Information**Acute Toxicity****A: General Material Information**

Polystyrene homopolymer may be irritating to the eyes. Skin contact with molten or heated material can cause burns. Vapors can be irritating to the respiratory system.

B: Acute Toxicity - LD50/LC50

No LD50/LC50's are available for this product's components.

Chronic Toxicity**A: General Material Information**

No additional information available.

B: Carcinogenic Effects

ACGIH, IARC, OSHA, and NTP carcinogen lists have been checked for those components with CAS registry numbers.

Polystyrene (9003-53-6)

IARC: Supplement 7, 1987; Monograph 19, 1979 (Group 3 (not classifiable))

Section 12 - Ecological Information**Ecotoxicity****A: General Material Information**

The information below is based on a knowledge of the components and the ecotoxicity of similar products. Sewer/waterway obstruction; marine life may ingest pellets, which may obstruct their digestive tract. Product is expected to be non-toxic, but small particles may have physical effects on aquatic and terrestrial organisms.

Environmental Fate

See information below.

Material Safety Data Sheet

Material Name: Crystal Polystyrene, Natural Grades

MSDS ID: NOVA-0044

Mobility

Sinks in water.

Persistence/Degradability

Pellets may accumulate in the digestive systems of birds and aquatic life, causing injury and possible death. Do not allow product to enter sewer or waterways. Expected to be inherently non-biodegradable.

Bioaccumulation/Accumulation

Not expected to bioaccumulate significantly.

Section 13 - Disposal Considerations

North America Waste Number & Descriptions

A: General Material Information

This product, if discarded, is not expected to be considered a hazardous waste according to US RCRA and Canadian regulations. Check Local, State, Federal, and Provincial Environmental Regulations prior to disposal. Preferred disposal methods are: 1) clean and reuse if possible; 2) contact resin broker; 3) contact plastic recycler; 4) incinerate with waste heat recovery and/or 5) landfill. Reuse, recycling, storing, transportation, and disposal must be in accordance with applicable federal, state/provincial and local regulation. DO NOT ATTEMPT TO DISPOSE OF BY UNCONTROLLED IGNITION.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Section 14 - Transportation Information

US DOT Information

Shipping Name: This material is not regulated as a hazardous material for transportation.

Canadian TDG Information

Shipping Name: This material is not regulated as a hazardous material for transportation.

International Air Transport Association (IATA) Regulations

Shipping Name: This material is not regulated as a hazardous material for transportation.

International Maritime Dangerous Goods (IMDG) Code

Shipping Name: This material is not regulated as a hazardous material for transportation.

Section 15 - Regulatory Information

U.S. Federal Regulations

A: General Material Information

No information available.

B: Component Analysis

None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

C: Component Analysis - U.S. State

Some components (including those present only in trace quantities, and therefore not listed in this document) may be included on the Right To Know lists of other U.S. states. The reader is therefore cautioned to contact his or her NOVA Chemicals representative or NOVA Chemicals' Product Integrity group for further U.S. State Right-To-Know information.

None of this products components are listed on the state lists from NJ or PA.

D: Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

U.S. State Regulations

Other U.S. state regulations may apply. Check individual U.S. state requirements.

Material Safety Data Sheet

Material Name: Crystal Polystyrene, Natural Grades

MSDS ID: NOVA-0044

Canadian Provincial Regulations

No information available.

Other Regulations

A: General Material Information

The monomer is listed by EINECS for polystyrene homopolymer.

B: Component Analysis - Inventory Status

Component	CAS #	US - TSCA	CANADA - DSL	EU - EINECS
Polystyrene	9003-53-8	Yes	Yes	No

Canadian Environmental Protection Act (CEPA): This product is on the Domestic Substances List (DSL), and is acceptable for use under the provisions of CEPA.

WHMIS Classification

Workplace Hazardous Materials Information Systems (WHMIS): This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations, and the MSDS contains all of the information required by the Controlled Products Regulations. Not controlled under WHMIS (Canada).

Section 16 - Other Information

Label Information

PRECAUTIONS: Product is a clear to white, inert, solid bead or pellet with slight odor. Nonflammable, but will burn on prolonged exposure to flame or high temperature. Slipping hazard.

FIRST AID:

SKIN: For contact with molten product, do not remove any material or clothing adhering to the skin. Flush the burned area immediately with large amounts of cold water. If it is possible, submerge the area in cold water. Immediately seek medical attention or contact a physician.

EYES: Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention.

INHALATION: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform rescue breathing. **WARNING:** It may be dangerous to the person providing aid to perform rescue breathing when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

INGESTION: DO NOT induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform rescue breathing. Seek immediate medical attention.

IN CASE OF A LARGE SPILL: Spilled product may create a dangerous slipping hazard. Use appropriate tools to put the spilled solid in an appropriate waste disposal container.

References

Not available

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; BOD = Biochemical Oxygen Demand; CAS = Chemical Abstracts Service; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CPR = Controlled Products Regulations; DOT = Department of Transportation; DSL = Domestic Substances List; EINECS = European Inventory of Existing Commercial Substances; EPA = Environmental Protection Agency; EU = European Union; FDA = Food and Drug Administration; IARC = International Agency for Research on Cancer; IDL = Ingredient Disclosure List; Kow = Octanol/water partition coefficient; NIOSH = National Institute for Occupational Safety and Health; NJTSR = New Jersey Trade Secret Registry; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; RCRA = Resource Conservation and Recovery Act; SARA = Superfund Amendments and Reauthorization Act; TDG = Transportation of Dangerous Goods; TSCA = Toxic Substances Control Act.

Validated by Product Integrity Group on 06/26/02 Verified by Product Steward.

Contact: Product Integrity Group
NOVA Chemicals Corporation

Material Safety Data Sheet

Material Name: Crystal Polystyrene, Natural Grades

MSDS ID: NOVA-0044

6711 Mississauga Road, Suite 200
Mississauga, Ontario L5N 2W3
Contact Phone: 905-542-6980

Other Information

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This is the end of MSDS # NOVA-0044

Material Safety Data Sheet

Donaldson SCA Coolant Filters

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Document No. P477335 Rev 1
Rev. 1/21/2005 11:23 AM

SECTION 1 - Product Identification

Mfr'd and Dist. By: Donaldson Company, Inc.
Address: P.O. Box 1299, Minneapolis, MN 55440
Reg. Phone: 1-800-374-1374
Emerg. Phone: 1-800-424-9300 (U.S. only)
Trade Name: Spin-on Coolant Filters w/SCA
Prod. Syn./Prod. Type: Diesel Engine Coolant Filter a closed cooling water corrosion treatment.
Donaldson Part No. P552055, P552096, P554019, P554071, P554072, P554073, P554074, P554075, P554422, P554860

SECTION 2 - Composition / Information on Ingredients

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation.

Hazardous Ingredients

CAS#	Chemical Name
7632-00-0	Sodium Nitrite Oxidizer; toxic (by ingestion); potential blood toxin
7775-19-1	Sodium Metaborate Octahydrate Potential irritant (eyes and respiratory)
149-30-4	2-Mercaptobenzothiazole Irritant; potential sensitizer
6834-92-0	Silicic Acid, Disodium Salt (Sodium Metasilicate) Corrosive (eyes and moist tissue)
12179-04-03	Boric Acid, Disodium Salt, Pentahydrate Irritant (abraded skin); slight irritant (respiratory)
7631-99-4	Sodium Nitrate Oxidizer; potential blood toxin

No component is considered to be a carcinogen by the National Toxicology Program, the International Agency for Research on Cancer, or the Occupational Safety and Health Administration at OSHA thresholds for carcinogens.

SECTION 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger:

May cause moderate irritation to the skin. Potential skin sensitizer. Severe irritant to the eyes. Dusts cause irritation to the upper respiratory tract.

DOT hazard: Oxidizer

Emergency Response Guide #140

Odor: Slight; Appearance: White to Yellow, Briquettes

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type). Proper fire-extinguishing media: Flood with water. Use of CO₂ or foam MAY NOT be effective.

POTENTIAL HEALTH EFFECTS

Acute Skin Effects: May cause moderate irritation to the skin. Potential skin sensitizer.

Acute Eye Effects: Severe irritant to the eyes.

Acute Respiratory Effects: Primary route of exposure; dusts cause irritation to the upper respiratory tract.

Ingestion Effects: Toxic; may cause gastrointestinal irritation with possible nausea, vomiting, abdominal discomfort and diarrhea.

Target Organs: Prolonged or repeated exposures may cause CNS depression, primary irritant dermatitis, skin sensitization, and/or toxicity to the blood.

Medical Conditions Aggravated: Not known.

Symptoms of Exposure: Respiratory tract irritation, abdominal pain, nausea, vomiting, flushing of skin, dizziness, collapse, cyanosis, and/or hypotension.

SECTION 4 - First Aid Measures

Skin Contact:

Wash thoroughly with soap and water. Remove contaminated clothing. Thoroughly wash clothing before reuse. Get medical attention if irritation develops or persists.

Eye Contact:

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get immediate medical attention.

Inhalation:

If nasal, throat or lung irritation develops, remove to fresh air and get medical attention.

Ingestion:

Do not feed anything by mouth to an unconscious or convulsive victim. Dilute contents of stomach. Induce vomiting by one of the standard methods. Immediately contact a physician.
Note to Physicians: No special instructions

SECTION 5 - Fire Fighting Measures

Fire Fighting Instructions:

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

Extinguishing Media:

Flood with water. Use of CO₂ or foam MAY NOT be effective.

Hazardous Decomposition Products

Thermal decomposition (destructive fires) yields elemental oxides.

Flashpoint

>200°F > 93°C P-M (CC)

Miscellaneous: Oxidizer

UN1479; Emergency Response Guide #140

SECTION 6 - Accidental Release Measures

Protection and Spill Containment: Ventilate area. Use specified protective equipment. Contain and absorb on absorbent material. Place in waste disposal container. Flush area with water. Wet area may be slippery. Spread sand/grit.

Disposal Instructions: Water contaminated with this product may be sent to a sanitary sewer treatment facility, in accordance with any local agreement, a permitted waste treatment facility or discharged under a permit. Product as is - incinerate or land dispose in an approved landfill.

SECTION 7 - Handling and Storage

Handling: Oxidizer. Avoid all contact with reducing agents, oils, greases, organics and acids.

Storage: Keep containers closed when not in use. Keep dry. Store away from acids.

SECTION 8 - Exposure Controls / Personal Protection

Chemical Name and Exposure Limits

Sodium Nitrite

PEL (OSHA): Not determined

Material Safety Data Sheet

Donaldson SCA Coolant Filters

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TLV (ACGIH): Not determined

Sodium Metaborate Octahydrate

PEL (OSHA): Not determined

TLV (ACGIH): Not determined

2-Mercaptobenzothiazole

PEL (OSHA): Not determined

TLV (ACGIH): Not determined

Silicic Acid Disodium Salt (Sodium Metasilicate)

PEL (OSHA): Not determined

TLV (ACGIH): Not determined

Boric Acid, Disodium Salt, Pentahydrate

PEL (OSHA): Not determined

TLV (ACGIH): 1 MG/M3

Sodium Nitrate

PEL (OSHA): Not determined

TLV (ACGIH): Not determined

Engineering Controls: Adequate ventilation to maintain air contaminants below exposure limits.

Personal Protective Equipment: Use protective equipment in accordance with 29CFR 1910 Subpart I

Respiratory Protection: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Use air purifying respirators within use limitations associated with the equipment or else use supplied air-respirators. If air-purifying respirator use is appropriate, use a respirator with dust/mist filters.

Skin Protection: neoprene gloves—wash off after each use. Replace as necessary.

Eye Protection: splash-proof chemical goggles.

SECTION 9- Physical and Chemical Properties

Density	55.0 lb/cu.
Freeze Point (F)	NA
Freeze Point (C)	NA
Viscosity (cps 70F, 21C)	NA
Vapor Pressure (mmHG)	<0.1
Vapor Density (air=1)	<1.00
% Solubility (water)	~10.0
Odor	Slight
Appearance	White to Yellow
Physical State	Briquettes
Flash Point P-M(CC)	>200°F >93°C
pH 1% Sol. (approx.)	~10.5
Evaporation Rate (Ether=1)	<1.00

NA=not applicable ND =not determined.

SECTION 10- Stability and Reactivity

Stability: Stable under normal storage conditions.

Hazardous Polymerization: Will not occur.

Incompatibilities: May react with organics or reducing agents.

Decomposition Products: Thermal decomposition (destructive fires) yields elemental oxides.

BetzDearborn Internal Pumpout/Cleanout Categories: "B"

SECTION 11- Toxicological Information

Oral LD50 Rat: ~190 mg/kg (estimated value)

Dermal LD50 Rabbit: >2,000 mg/kg (estimated value)

SECTION 12- Ecological Information

Aquatic Toxicology: No data available.

Biodegradation: No data available.

SECTION 13- Disposal Considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is : D001=ignitable.

Please be advised; however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

SECTION 14- Transport Information

DOT Hazard: Oxidizer

UN/NA Number: UN1479

DOT Emergency Response Guide #: 140

SECTION 15- Regulatory Information

TSCA: All components of this product are listed in the TSCA inventory.

CERCLA and/or SARA REPORTABLE QUANTITY (RQ):

224 lbs. due to Sodium Nitrite

SARA Section 312 Hazard Class: Immediate (acute); Delayed (Chronic); Fire

SARA Section 302 Chemicals: NO regulated constituent present at OSHA thresholds

SARA Section 313 Chemicals:

CAS#	Chemical Name	Range
7632-00-0	Sodium Nitrite	41.0-50.0%
149-30-5	2-Mercaptobenzothiazole	11.0-15.0%
7631-99-4	Sodium Nitrate	6.0-10.0%

California Regulatory Information

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65) Chemicals Present: No regulated constituent present at OSHA thresholds.

Michigan Regulatory Information

No regulated constituent present at OSHA thresholds.

SECTION 16- Other Information

NFPA/HMIS	Code	Translation
Health	2	Moderate Hazard
Fire	0	Minimal Hazard
Reactivity	0	Minimal Hazard
Special	OXY	DOT or NFPA Oxidizer
(1) Protective Equipment	B	Goggles, Gloves

(1) refer to Section 8 of MSDS for additional protective equipment recommendations

Change Log MSDS Status: 11-27-01 (Supersedes Service Tip Document 403 and P473987)

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WARNING: Welding with these products produces chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm.

SECTION V REACTIVITY DATA

Stability: Unstable N/A Conditions to avoid N/A
Stable N/A

Incompatibility (Materials to avoid) N/A

Hazardous Decomposition or Byproducts

Hazardous May occur N/A Conditions to avoid N/A

Polymerization Will not occur N/A

HAZARDOUS DECOMPOSITION PRODUCTS

Welding fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, the process, and electrodes used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include; coatings on the metal being welded (such as paint, plating, or galvanizing), the number of welders and the volume of the work area, the quality and amount of ventilation, the position of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities), when the electrode is consumed the fume and gas decomposition products generated are different in percent and form from the ingredients listed in SECTION II. Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the materials shown in SECTION II, plus those from the basemetal and coating, etc., as noted above.

Reasonably expect fume constituents of this product could include: example for Carbon dioxide shielded Flux-cored electrode (AWS 5.20, E70-T-1) reasonably expected fume constituents of this product could include: primarily oxides of Iron; secondarily complex oxides of Manganese, Silicon, Titanium and Sodium.

Example of Stainless Steel covered electrodes (AWS 5.4): Reasonably expected fume constituents of this product would include: primarily fluorides and complex oxides of Iron and Silicon, secondarily complex oxides of Manganese.

The present OSHA TLV for hexavalent Chromium (Cr VI) is 1.05 mg/m³ which will result in a significant reduction from the 5 mg/m³ general welding fume (NOC) level.

Gaseous reaction products many include Carbon monoxide and Carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc. One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample from the inside the welder's helmet if worn or in the worker's breathing zone. See ANSI/AWS F1.1-78, available from the American Welding Society, 2501 NW 7th St, Miami, FL 33125.

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SECTION VI HEALTH HAZARD DATA

Routes(s) of entry: Inhalation/ * * Skin/ UNLIKELY Ingestion/ UNLIKELY Health Hazards (Acute and Chronic) See Section VI Threshold Limit Value. See below

WELDING FUMES MAY DEVELOP WHICH COULD BE HAZARDOUS IN CASE OF PROLONGED EXPOSURE. FUMES CAN BE ELIMINATED THROUGH EXTRACTION. PRODUCTS THAT CONTAIN NICKEL CAN CAUSE CANCER IF INHALED.

Carcinogenicity: Nickel: The International Agency for Research on Cancer indicates nickel refining and "certain nickel compounds: were cancer--causing, but could not state with certainty which forms of nickel may be carcinogenic. The National Toxicology Program lists nickel powder, nickel subsulfide, nickel oxide, nickel carbonate, nickel carbonyl and nickelocene as substances", that may reasonably anticipated to be carcinogens." Because of this, the OSHA Hazard Communication Standard requires that everyone who manufactures or imports these substances or mixtures or alloys containing these substances must warn of cancer hazard on their MSDS's and labels. This warning is mandated by OSHA even though studies have not demonstrated cancer risks associated with the use of nickel. Skin contact may cause allergic skin rash. Nickel is not very toxic if swallowed. Intramuscular injection and implantation of nickel powder produced localized tumors in rats and mice. Inhyalation studies using animals showed no evidence of carcinogenicity.

Signs and Symptoms of Exposure: N/A

** Gases and fumes generated while welding may be dangerous to your health. ACUTE: Short-term exposure may result in discomfort such as dryness or irritation in the nose or throat, irritation of eyes, dizziness or nausea.

CHRONIC; Long-term exposure can lead to siderosis (Iron deposits in the lungs) and may effect pulmonary functions. Medical conditions generally aggravated by exposure: LOCAL EFFECTS; FUMES CAN IRRITATE EYES, LUNGS & MUCOUS MEMBRANES. LIQUID WELDING SPATTERS CAN CAUSE SKIN BURNS. OVEREXPOSURE; PROLONGED EXPOSURE
Emergency and First Aid Procedures: IN CASE OF FUME INHALATION, REMOVE TO FRESH AIR. SKIN BURNS CAN BE TREATED WITH COMMERCIAL OINTMENTS. IN AN EMERGENCY MEDICAL HELP IS ADVISED.

THRESHOLD LIMIT VALUE

The ACGIH-1980 (or latest data) recommended general limit for welding fume NOC- (not otherwise classified) is 5 mg/m3. ACGIH-1979 Preface states, "The TLV-TWA should be used as guides in the control of health hazards and should not be used as fine lines between safe and dangerous concentrations. See SECTIONS V and SECTION VI for specific fume constituents which may modify this TLV.

EFFECTS OF OVER-EXPOSURE;

Electric arc welding may create one or more of the following :

Fumes and gases can be dangerous to your health.

Arc Rays can injure eyes and burn skin.

Electric Shock can kill

Short term over-exposure to welding fumes may result in discomfort such as: dizziness, nausea, or dryness or irritation of nose, throat or eyes see SECTIONS VI AND VIII.

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SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled N/A

Waste Disposal Method: MATERIAL SHOULD BE USED UP OR DISPOSED OF
IN AN ENVIRONMENTALLY SAFE MANNER.

Precautions to be taken in handling and storing: COOL AND DRY STORAGE.

Other Precautions: WHEN WELDING, BRAZING, OR SOLDER, WELDING
ARC OR TORCH FLAME MAY BE A SOURCE OF IGNITION OF COMBUSTIBLE
PRODUCT.

SECTION VIII CONTROL MEASURES

Respiratory Protection (specify Type): See Below

Ventilation: Local Exhaust; REQUIRED IN SEMI-OPEN OR POORLY
VENTILATED SPACES.

Mechanical (general); SAME

Protective Gloves: See Below

Other Protective clothing or Equipment: See Below

Work/Hygienic Practices: See Below

SPECIAL PROTECTION INFORMATION AND PRECAUTIONS

Read and understand the manufacturer's instructions and the
precautionary label on the product. See American National Standard 2501
N W 7th Street, Miami, FL 33125 and OSHA publication 2206 (29CFR1910)
US Government Printing office Washington DC 20402 for more details.

VENTILATION: Use enough ventilation, local exhaust at the arc, or
both, to keep the fumes and gases below TLV'S in the worker's
breathing zone and the general area. Train the welder to keep his head
out of the fumes.

RESPIRATORY PROTECTION: Use respirable fume respirators or air
supplied respirator when welding in confined space or where local
exhaust or ventilation does not keep exposure below TLV.

EYE PROTECTION; Wear helmet or use face shield with filter lens shade
number (10) or darker. Provide protective screens and flash goggles,
if necessary, to shield others.

PROTECTIVE CLOTHING; Wear hand, head, and body protection which help
to prevent injury from radiation, sparks, and electrical shock.
See Z49.1. At a minimum this includes welder's gloves and protective
face shield, and may include arm protectors, aprons, hats, shoulder
protection, and well as dark substantial clothing. Train the welder
not to touch live electrical parts.

TRUCK CENTERS INC. \ TCAMS
8440 N. TABLER RD
MORRIS, IL 60450
PHONE: 815-941-9305
FAX: 815-941-9403

To: Mike

Date: 8-7-06

From: TRM

Number of Pages: ~~4~~ 2
(Including this Page)

I missed a sheet

MATERIAL SAFETY DATA SHEET

May be used to comply with OSHA'S Hazard communication Standard 29 CFR 1910.1200; standard must be consulted for specific requirements.

SECTION I IDENTITY

Product (s) #320 ALUMINUM WIRE
 Manufacturer/Distributor Name: NISCO / US Alloy's
 Address: 962 Home Place Road Jacksonville, IL . 62650
 Telephone Number: (217) 243-5145
 Date prepared: Revised 06-05
 NFPA Rating N/A Health: N/A Flammability: N/A Reactivity: N/A

SECTION II HAZARDOUS INGREDIENTS/COMPONENTS:

Chem Identity	CAS#	OSHA PEL	PERCENT	CARCIN.
Aluminum	7429-90-5	1	85-95	NO
Beryllium	7440-41-7	.002	.08	NO
Copper	7440-50-8	.02	6.6	NO
Iron	7439-89-6	5	.08	YES
Magnesium	1309-48-4	10.0	5.6	YES
Manganese	7439-95-5	1.0	1.0	NO
Silicon	7440-21-3	10.0	1.0	NO
Zinc	1314-13-2	5	.08	NO
Cobalt	7440-48-4	.05	N/A	NO

IMPORTANT! This section covers the material from which this product is manufactured. The fumes and gases produced during welding with this product are covered by section VI. The term "hazardous" in Hazardous Materials should be interpreted as a term required and defined in OSHA 2265 and does not necessarily imply the existence of any hazard. The chemicals or compounds reportable by Section 313 of SARA are marked by the symbol #.

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

Physical Form Solid
 Melting Temperature 521-857C(970-1215F)
 Specific Gravity 2.5-2.9
 Vapor Pressure N/A
 Solubility in Water Nil
 Evaporation Rate N/A
 Color Metallic
 Odor None

SECTION IV FIRE & EXPLOSION HAZARD DATA

Flash Point N/A
 Upper Flammable Limit N/A
 Lower Flammable Limit N/A
 Auto Ignition Temperature N/A
 Product is non-flammable NOT EXPLOSIVE

IMPORTANT!! (Non-Flammable) Welding arc and sparks can ignite combustibles. Refer to American National Standard Z49.1 for fire prevention and protection information during the use of welding and allied procedures.

SHARK
Division of Shark Industries Ltd.
6700 Bleck Drive
Rockford, Minnesota 55373

SANDMATE - MATERIAL SAFETY DATA SHEET

Date Revised: Nov 1, 1996

1. GENERAL INFORMATION: PRODUCT; STAR-BRITE DISCS
CHEMICAL NAME & SYNONYMS: TRADE NAME & SYNONYMS:
Sanding disc Sandtex Surface Conditioning disc
CHEMICAL FAMILY: N/A FORMULA: N/A

PROPER DOT SHIPPING NAME: DOT HAZARD CLASSIFICATION:
Not restricted Not restricted
PRODUCT Range: Rolls, discs and belts MANUFACTURERS PHONE #:
800-537-4275
CHEMTREC PHONE #: Not used

2. INGREDIENTS

PRINCIPAL HAZARDOUS COMPONENTS % OEL/TLV
Abrasive Aluminum Oxide 10 mg/m3
Binder Polyurethane
Scrim Polyester
Fiber Nylon
Proprietary

3. PHYSICAL DATA

BOILING POINT: SPECIFIC GRAVITY:
NA NA
VAPOR PRESSURE: PERCENT VOLATILE BY VOLUME %:
NA NA
VAPOR DENSITY: EVAPORATION RATE (# 1)
NA NA
SOLUBILITY IN WATER:
Not soluble in water
APPEARANCE & ODOR
Grinding disc No odor

4. FIRE & EXPLOSION HAZARD DATA

FLASH POINT (TEST METHOD):
NA
AUTO IGNITION TEMPERATURE:
LEL: NA
UEL: NA
FLAMMABLE LIMITS:
NA
EXTINGUISHING MEDIA:
Water: CO2, foam extinguisher
SPECIAL FIRE FIGHTING PROCEDURES:
None
UNUSUAL FIRE & EXPLOSION HAZARDS:
Burns readily-gives off toxic fumes.
Breathing apparatus should be worn to fight serious fires in continued spaces.

5. HEALTH HAZARD DATA: PRODUCT: STAR-BRITE DISCS

THRESHOLD VALUE: OSHA THRESHOLD VALUE; ACGIH THRESHOLD LIMIT VALUE:
NA NA NA
CARCINOGEN-NTP PROGRAM: CARCINOGEN-IARC PROGRAM
NA NA
SYMPTOMS OF EXPOSURE:
NA
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
NA
PRIMARY ROUTES OF ENTRY:
NA
EMERGENCY FIRST AID:
NA

6. REACTIVITY DATA:

STABILITY: CONDITIONS TO AVOID:
NA NA
INCOMPATIBILITY: MATERIALS TO AVOID:
NA NA
HAZARDOUS POLYMERIZATION: CONDITIONS TO AVOID:
Will not occur NA
HAZARDOUS DECOMPOSITION PRODUCTS:
NA

7. ENVIRONMENTAL PROTECTION PROCEDURES:

SPILL RESPONSE:
NA
WASTE DISPOSAL METHOD:
Ordinary waste which can be dumped at normal Disposal. For dumping to
incinerators under controlled conditions.
OTHER PRECAUTIONS:
Use eye and body protection during grinding.

8. SPECIAL PROTECTION INFORMATION:

EYE PROTECTION: SKIN PROTECTION:
Yes protective gloves
RESPIRATORY PROTECTION (SPECIFIC TYPE) VENTILATION RECOMMENDED:
Good ventilation
OTHER PROTECTION:
Full body protection and observe recommended running speeds.

9. SPECIAL PRECAUTIONS

HYGIENIC PRACTICES IN HANDLING & STORAGE:
Normal and clean work practices are recommended.
PRECAUTIONS FOR REPAIR & MAINTENANCE OF CONTAMINATED EQUIPMENT: NA
OTHER PRECAUTIONS:

MATERIAL SAFETY DATA SHEET

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GENETRON(R) 134A
HONEYWELL

SECTION 1: IDENTIFICATION

MSDS ID: MSDS524

PRODUCT NAME: GENETRON(R) 134a, GENETRON(R) 134aUV
R134AC, BR134AJ, R134AUVC, BR134AUVJ, ER134AP, BR134AUVP

MANUFACTURER: Honeywell
101 Columbia Road
P.O. Box 1053
Morristown, NJ 07962-1053

INFORMATION PHONE NUMBER: (800) 522-8001
(Monday - Friday 9:00 A.M - 5:00 P.M.)

EMERGENCY PHONE NUMBER: (800) 707-4555 (24 Hours/Day, 7 Days/Week)
(800) 424-9300 (Chemtrec)

MSDS DATE OF PREPARATION/REVISION: 04/06/06

NFPA RATING (NFPA 704) - FIRE: 1
HEALTH: 2
REACTIVITY: 0

SECTION 2: PRODUCT COMPONENTS

HAZARDOUS COMPONENTS	CAS#	PERCENT
1,1,1,2-Tetrafluoroethane	811-97-2	99.8-100
UV Dye (UV only)	Proprietary	0-0.065

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Colorless or slightly yellow, volatile liquid with an ethereal and faint sweetish odor. Non-flammable material. Overexposure may cause dizziness and loss of concentration. At higher levels, CNS depression and cardiac arrhythmia may result from exposure. Vapors displace air and can cause asphyxiation in confined spaces. At higher temperatures, (greater than 250 C), decomposition products may include corrosive and toxic hydrofluoric acid and carbonyl halides.

POTENTIAL HEALTH EFFECTS:

ACUTE HAZARDS:

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SECTION 3: HAZARDS IDENTIFICATION (Cont.)

INHALATION: Genetron 134a is of low acute toxicity in animals. When oxygen levels in air are reduced to 12-14% by displacement, symptoms of asphyxiation, loss of coordination, increased pulse rate and deeper respiration will occur. At high levels, cardiac arrhythmia may occur.

SKIN CONTACT: Irritation would result from a defatting action on tissue. Liquid contact could cause frostbite.

EYE CONTACT: Liquid contact can cause irritation, which may be severe. Mist may irritate.

INGESTION: Although ingestion is unlikely, discomfort in the gastrointestinal tract would result from rapid evaporation (boiling) of the material, and consequent evolution of gas. In addition, some of the effects of inhalation would be expected. Necrosis from freezing of tissue could occur.

CHRONIC EFFECTS: None known.

CARCINOGEN: None of the components of this product is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.

SECTION 4: FIRST AID MEASURES

INHALATION: Immediately remove to fresh air. If breathing has stopped, give artificial respiration. Use oxygen as required, provided a qualified operator is available. Call a physician. Do not give epinephrine (adrenaline).

SKIN CONTACT: Promptly flush skin with water until all the chemical is removed. If there is evidence of frostbite, bathe (do not rub) with lukewarm (not hot) water. In the absence of water, cover with a clean, soft cloth or similar covering. Call a physician.

EYE CONTACT: Immediately flush eyes with large amounts of water for at least 15 minutes (in case of frostbite, water should be lukewarm - not hot), lifting eyelids occasionally to facilitate irrigation. Get immediate medical attention if symptoms persist.

INGESTION: Ingestion is unlikely because of the physical properties of Genetron 134a, and is not expected to be hazardous. Do not induce vomiting unless instructed to do so by a physician.

NOTES TO PHYSICIAN: Because of possible disturbances of cardiac rhythm, catecholamine drugs such as epinephrine should be used with special caution only in situations of emergency life support. Treatment of overexposure should be directed at the control of symptoms and the

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SECTION 4: FIRST AID MEASURES (Cont.)

clinical conditions.

SECTION 5: FIRE AND EXPLOSION DATA

FLASH POINT: No flashpoint

FLAMMABILITY LIMITS:

LEL: Not Applicable UEL: Not Applicable

AUTOIGNITION TEMPERATURE: >750 F

EXTINGUISHING MEDIA: Use any standard agent - choose the one most appropriate for the type of surrounding fire (material itself is not flammable).

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool.

UNUSUAL FIRE HAZARDS: Genetron 134a is not flammable at ambient temperatures and atmospheric pressure. However, this material will become combustible when mixed with air under pressure and exposed to strong ignition sources. Contact with certain reactive metals may result in the formation of explosive or exothermic reactions under specific conditions (e.g. very high temperatures and/or appropriate pressures).

HAZARDOUS COMBUSTION PRODUCTS: Halogens, halogen acids and possibly carbonyl halides.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Always wear recommended personal protective equipment. Evacuate unprotected personnel. Protected personnel should remove ignition sources and shut off leak, if without risk, and provide ventilation. Unprotected personnel should not return until the air has been tested and determined safe, including low-lying areas.

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 HONEYWELL

SECTION 7: HANDLING AND STORAGE

Avoid breathing vapors and liquid contact with eyes, skin, or clothing.
 Do not puncture or drop cylinders, expose them to open flame or excessive heat.
 Use authorized cylinders only.
 Follow standard safety precautions for handling and use of cylinders of liquefied gases.
 Genetron 134a should not be mixed with air above atmospheric pressure for leak testing or any other purpose.
 Store in a cool, well-ventilated area of low risk and out of direct sunlight. Protect cylinder and its fittings from physical damage.
 Storage in subsurface locations should be avoided. Close valve tightly after use and when empty.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

HAZARDOUS COMPONENTS

1,1,1,2-Tetrafluoroethane

EXPOSURE LIMIT/SOURCE

1000 ppm TWA AIHA WEEL

Hydrogen Fluoride (decomposition product as F)

3 ppm TWA OSHA PEL

0.5 ppm TWA skin ACGIH TLV

2 ppm Ceiling ACGIH TLV

VENTILATION: Provide local ventilation at filling zones and areas where leakage is probable. Mechanical (general) ventilation may be adequate for other operating and storage areas.

RESPIRATORY PROTECTION: None generally required for adequately ventilated work situations. For accidental release or non-ventilated situations, or release into confined space where concentration may be above the recommended exposure limit of 1,000 ppm, use a self-contained, NIOSH-approved breathing apparatus or supplied air respirator. For escape: use the former or a NIOSH-approved gas mask with organic vapor canister.

GLOVES: Skin contact with refrigerant gas may cause frostbite. General work clothing and gloves (leather) should provide adequate protection. If prolonged contact with the liquid or gas is anticipated, insulated gloves constructed with PVA, neoprene or butyl rubber should be used. Any contaminated clothing should be promptly removed and washed before reuse.

EYE PROTECTION: For normal use, wear safety goggles. Where there is a reasonable probability of liquid contact, wear chemical safety goggles.

OTHER PROTECTIVE EQUIPMENT/CLOTHING: Where contact with liquid is

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)

likely, impervious boots and clothing should be used in case of spillage or leakage, or if there is the probability of contact with liquid product. High dose-level warning signs are recommended for areas of principal exposure. Provide eyewash stations and quick-drench shower facilities at convenient locations. For tank cleaning operations, see OSHA regulations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, colorless or slightly yellow liquid and vapor with a faint ethereal odor. No odor threshold data available.

pH: Neutral

BOILING POINT (F): -15.1 F

FREEZING POINT (F): -141.9 F

SOLUBILITY IN WATER: 0.15%

PERCENT VOLATILE: 100%

SPECIFIC GRAVITY: Less than 1.22

VAPOR PRESSURE: 85.8 psia @ 70 F

VAPOR DENSITY: 3.5

EVAPORATION RATE: >1 (CCl4=1)

VISCOSITY: Not applicable

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Do not mix with oxygen or air above atmospheric pressure. Any source of high temperature, such as lighted cigarettes, flames, hot spots, welding may yield toxic and/or corrosive decomposition products.

INCOMPATIBILITY: (Under specific conditions: e.g., very high temperatures and/or appropriate pressures). Freshly abraded aluminum surfaces (may cause strong exothermic reaction). Chemically active metals: potassium, calcium, powdered aluminum, magnesium, and zinc.

HAZARDOUS DECOMPOSITION PRODUCTS: Halogens, halogen acids and possibly carbonyl halides.

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: None known.

SECTION 11: TOXICOLOGICAL INFORMATION

LC50 Inhalation Rat: >500,000 ppm/4hr

Cardiac Sensitization Threshold: 80,000 ppm, NOEL (dog): 50,000 ppm

Not mutagenic in four assays.

Teratogenic NOEL (rat and rabbit): 40,000 ppm

Chronic NOEL: 10,000 ppm

NOEL = no observable effect level.

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SECTION 12: ECOLOGICAL INFORMATION

Degradability (BOD): Genetron 134a is a gas at room temperature, therefore, it is unlikely to remain in water.

Octanol Water Partition Coefficient LOG P (octanol/water): 1.06

SECTION 13: DISPOSAL INFORMATION

Disposal must comply with federal, state and local disposal or discharge laws. Dispose of waste Genetron 134a (Tetrafluoroethane) may be subject to federal regulations. User should review their operations, then consult with appropriate regulatory agencies before discharging or disposing of waste material. Disposal by licensed waste disposal company may be necessary.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

SECTION 14: TRANSPORT INFORMATION

U.S. DOT HAZARD CLASSIFICATION

PROPER SHIPPING NAME: 1,1,1,2-Tetrafluoroethane
TECHNICAL NAME: N/A
UN NUMBER: UN3159
HAZARD CLASS/PACKING GROUP: 2.2
LABELS REQUIRED: Non-flammable Gas

DOT MARINE POLLUTANTS: This product does not contains Marine Pollutants as defined in 49 CFR 171.8.

IMDG CODE SHIPPING CLASSIFICATION

DESCRIPTION: 1,1,1,2-Tetrafluoroethane, 2.2, UN3159
ID NUMBER: UN3159
HAZARD CLASS: 2.2
PACKING GROUP: None
LABELS REQUIRED: Non-Flammable Gas
PLACARDS REQUIRED: Non-Flammable Gas

CANADIAN TDG CLASSIFICATION

PROPER SHIPPING NAME: 1,1,1,2-Tetrafluoroethane, 2.2, UN3159
ID NUMBER: UN3159

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SECTION 14: TRANSPORT INFORMATION (Cont.)

HAZARD CLASS: 2.2
PACKING GROUP: N/A
LABELS REQUIRED: Non-Flammable Gas
PLACARDS REQUIRED: Non-Flammable Gas

SECTION 15: REGULATORY INFORMATION

EPA SARA 311/312 HAZARD CLASSIFICATION: Acute health, Pressure Hazard

EPA SARA 313: This Product Contains the Following Chemicals
Subject to Annual Release Reporting Requirements Under SARA Title
III, Section 313 (40 CFR 372): None

PROTECTION OF STRATOSPHERIC OZONE: This product is not known to
contain or to have been manufactured with ozone depleting
substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting
requirements as it is sold. Many states have more stringent release
reporting requirements. Report spills required under federal, state
and local regulations.

CALIFORNIA PROPOSITION 65 - This product does not contain chemicals
regulated under California Proposition 65.

EPA TSCA INVENTORY: All of the components of this material are listed
on the Toxic Substances Control Act (TSCA) Chemical Substances
Inventory.

CANADIAN ENVIRONMENTAL PROTECTION ACT: All of the ingredients are
listed on the Canadian Domestic Substances List.

CANADIAN WHMIS CLASSIFICATION: Class A (Compressed Gas)

This MSDS has been prepared according to the criteria of the Controlled
Products Regulation (CPR) and the MSDS contains all of the information
required by the CPR.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS):
All of the ingredients are listed on the EINECS inventory.

AUSTRALIA: All of the ingredients of this product are listed on the
Australian Inventory of Chemical Substances.

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GENETRON(R) 134A
HONEYWELL

SECTION 16: OTHER INFORMATION

REVISION SUMMARY: Section 1: Added product name, revised NFPA Rating
Section 2: Added ingredient.
Section 3: Changed appearance and hazards.
Section 8: Moved exposure limits from Section 2.
Section 9: Changed appearance, freezing point and vapor pressure units..
Section 11: Added toxicity data.

This MSDS is directed to professional users and bulk handlers of the product. Consumer products are labeled in accordance with Federal Hazardous Substances Act regulations.

While Prestone Products Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of tests conducted, the data are not to be taken as a warranty or representation for which Prestone Products Corporation assumes legal responsibility. They are offered for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

If more information is needed, please contact:

Technical Services
Prestone Products Corporation
55 Federal Road
Danbury, CT 06810
(800)-862-7737

Initial Preparation Date: Unknown
Last Revision Date: 4/2/03

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTITY: FLEET COOL® ANTIFREEZE & COOLANT

1. CHEMICAL PRODUCT & COMPANY INFORMATION

OLD WORLD INDUSTRIES, INC.
4065 COMMERCIAL AVENUE
NORTHBROOK, ILLINOIS 60062
PHONE: 847-559-2000
EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC)

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Material</u>	<u>CAS#</u>	<u>% by Wt</u>	<u>PEL (OSHA)</u>	<u>TLV (ACGIH)</u>
Ethylene Glycol	107-21-1	90 - 95	50 ppm	50 ppm
Diethylene Glycol	111-46-6	0 - 5	None	None
Dipotassium Phosphate	7758-11-4	1 - 2	None	None

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW



Lowest Known LD50 (Oral)	107-21-1	5840 mg/kg (Rats)
Lowest Known LD50 (Skin)	107-21-1	9530 mg/kg (Rabbits)

HAZARD RATING SYSTEM

NFPA: HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0
HMIS: HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0

KEY: 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe

Fleet Cool Antifreeze

1

4. FIRST AID MEASURES

Ensure physician has access to this MSDS.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: Inhalation, Ingestion, Skin Contact/Absorption, Eye Contact

Eye: May cause slight transient (temporary) eye irritation. Corneal injury is unlikely. Vapors or mists may cause eye irritation.

Skin: Prolonged or repeated exposure not likely to cause significant skin irritation. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. Repeated skin exposure may result in absorption of harmful amounts. Massive contact with damaged skin or of material sufficiently hot to burn skin may result in absorption of potential lethal amounts.

Ingestion: Single dose oral toxicity is considered to be moderate. Excessive exposure may cause central nervous system effects, cardiopulmonary effects (metabolic acidosis), and kidney failure. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing amounts larger than that may cause serious injury, even death.

Inhalation: At room temperature, exposures to vapors are minimal due to physical properties; higher temperatures may generate vapor levels sufficient to cause adverse effects.

Systemic (Other Target Organ) Effects: Repeated excessive exposures may cause severe kidney and also liver and gastrointestinal effects. Signs and symptoms of excessive exposure may be central nervous system effects. Signs and symptoms of excessive exposure may be nausea and/or vomiting. Signs and symptoms of excessive exposure may be anesthetic or narcotic effects. Observations in animals include formation of bladder stones after repeated oral doses of ethylene glycol. Reports of kidney failure and death in burn patients suggest the ethylene glycol may have been a factor. The use of topical applications containing this material may not be appropriate in severely burned patients or individuals with impaired renal function.

Cancer Information: Based on data from long-term animal studies, ethylene glycol is not believed to pose a carcinogenic risk to man.

Teratology (Birth Defects): Exposure to ethylene glycol has caused birth defects in laboratory animals only at doses toxic to the mother.

Reproductive Effects: Ethylene glycol has not interfered with reproduction in animal studies except at very high doses.

TREATMENT

Eyes: Immediately flush eyes with large amounts of water for 15 minutes, lifting lower and upper lids. Get medical attention as soon as possible. Contact lenses should never be worn when working with this chemical.

Skin: Flush area of skin contact immediately with large amounts of water for at least 15 minutes while removing contaminated clothing. If irritation persists after flushing, get medical attention promptly. Wash clothing before re-use.

Inhalation: If inhaled, immediately remove victim to fresh air and call *emergency medical care*. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion: Obtain medical attention immediately. If patient is fully conscious, give two glasses of water. Do not induce vomiting. If medical advice is delayed, and if the person has swallowed a moderate volume of material (a few ounces), then give three to four ounces of hard liquor, such as whisky. For children, give proportionally less liquor, according to weight.

Notes to Physician:

It is estimated that the lethal oral dose to adults is of the order of 1.0 ml/kg. Ethylene glycol is metabolized by alcohol dehydrogenase to various metabolites including glycoaldehydes, glycolic acid and oxalic acid which cause an elevated anion-gap metabolic acidosis and renal tubular injury. The signs and symptoms in ethylene glycol poisoning are those of metabolic acidosis, CNS depression, and kidney injury. Urinalysis may show albuminuria, hematuria and oxaluria. Clinical chemistry may reveal anion-gap metabolic acidosis and uremia. The currently recommended medical management of ethylene glycol poisoning includes elimination of ethylene glycol and metabolites, correction of metabolic acidosis and prevention of kidney injury. It is essential to have immediate and follow up urinalysis and clinical chemistry. There should be particular emphasis on acid-base balance and renal function tests. A continuous infusion of 5% sodium bicarbonate with frequent monitoring of electrolytes and fluid balance is used to achieve correction of metabolic acidosis and forced diuresis. As a competitive substrate for alcohol dehydrogenase, ethanol is antidotal. Given in the early stages of intoxication, it blocks the formulation of nephrotoxic metabolites. A therapeutically effective blood concentration of ethanol is in the range 100-150 mg/dl, and should be achieved by a rapid loading dose and maintained by intravenous infusion. For severe and/or deteriorating cases, hemodialysis may be required. Dialysis should be considered for patients who are symptomatic, have severe metabolic acidosis, a blood ethylene glycol concentration greater than 25 md/dl, or compromise of renal functions.

A more effective intravenous antidote for physician use is 4-methylpyrazole, a potent inhibitor of alcohol dehydrogenases, which effectively blocks the formation of toxic metabolites of ethylene glycol. It has been used to decrease the metabolic consequences of ethylene glycol poisoning before metabolic acidosis coma, seizures, and renal failure have occurred. A generally recommended protocol is a loading dose of 15 mg/kg followed by 10 mg/kg every 12 hours for 4 doses and then 15 mg/kg every 12 hours until ethylene glycol concentrations are below 20 mg/100 ml. Slow intravenous infusion is required. Since 4-methylpyrazole is dialyzable, increased dosage may be necessary during hemodialysis. Additional therapeutic measures may include the administration of cofactors involved in the metabolism of ethylene glycol. Thiamine (100 mg) and pyridoxine (50 mg) should be given every six hours.

Pulmonary edema with hypoxemia has been described in a number of patients following poisoning with ethylene glycol. The mechanism of production has not been elucidated, but it appears to be non-cardiogenic in origin in several cases. Respiratory support with mechanical ventilation and positive end expiratory pressure may be required. There may be cranial nerve involvement in the late stages of toxicity from swallowed ethylene glycol. In particular, effects have been reported involving the seventh, eighth and ninth cranial nerves, presenting with bilateral facial paralysis, diminished hearing and dysphasia.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point: 110°C (247°F)

Method Used: Swatchflash

Fleet Cool Antifreeze

Flammability Limits - % of vapor concentration at which product can ignite in presence of spark.

Lower Flammability Limit: 3.2%

Upper Flammability Limit: 15.3%

Hazardous Combustion Products: Hazardous combustion products may include and are not limited to carbon monoxide, carbon dioxide and trace amounts of aldehydes and organic acids. When available oxygen is limited, as in a fire or when heated to very high temperatures by a hot wire or plate, carbon monoxide and other hazardous compounds such as aldehydes might be generated.

Extinguishing Media: Water fog or fine spray. Alcohol resistant foams (ATC type) are preferred if available. General purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively. Carbon dioxide. Dry chemical. Do not use direct water stream. May spread fire.

Fire Fighting Instructions: No fire and explosion hazards expected under normal storage and handling conditions (i.e. ambient temperatures). However, ethylene glycol or solutions of ethylene glycol and water can form flammable vapors with air if heated sufficiently. Keep people away. Isolate fire area and deny unnecessary entry.

Protective Equipment for Fire Fighters: Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire-fighting helmet, coat, pants, boots and gloves).

6. ACCIDENTAL RELEASE MEASURES

Protect People: Material is moderately toxic when ingested. Take adequate precautions to keep people, especially children away from spill site. PVC-coated rubber gloves and monogoggles or faceshield can be used during cleanup of spill site. Product on surfaces can cause slippery conditions. Practice reasonable care and cleanliness. Avoid breathing spray mists if generated. Keep out of reach of children. Product may become a solid at temperatures below -18°C (0°F). Do not store near food, foodstuffs, drugs or potable water supplies.

Protect the Environment: Do not dump used product or diluted material into sewers, on the ground, or into any body of water.

Cleanup: Small spills: Soak up with absorbent material. Large spills: Dike and pump into suitable containers for disposal. Ensure compliance with all applicable statutes that require notification of appropriate government officials.

7. HANDLING AND STORAGE

Steps to be Taken in Case Material is Released or Spilled: Eliminate all sources of ignition in vicinity of the spilled or released fluid.

Other Precautions: Use normal precautions in handling any combustible liquid. Keep container closed when not in use. Store away from heat or open flame. Product on surfaces can cause slippery conditions. Practice reasonable care and cleanliness. Avoid breathing spray mists if generated. Keep out of reach of children. Product may become a solid at temperatures below -18°C (0°F). Do not store near food, foodstuffs, drugs or potable water supplies.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: Respiratory protection is required if airborne concentration exceeds TLV. At any detectable concentration any self-contained breathing apparatus with a full facepiece and operated in a pressure-demand or other positive pressure mode or any supplied-air respirator with a full facepiece and operated in a pressure-demand or other positive pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive pressure mode.

Escape: Any air-purifying full facepiece respirator (gas mask) with a chin-style or front- or back-mounted organic vapor canister or any appropriate escape-type self-contained breathing apparatus.

Skin Protection: Protective gloves recommended when prolonged skin contact cannot be avoided. Polyethylene, Neoprene, Nitrile; Polyvinyl alcohol; Natural Rubber, Butyl Rubber. Safety shower should be available.

Eye Protection: Safety goggles and face shield. Emergency eyewash should be available. Contact lenses should not be worn when working with this chemical.

Engineering Controls: Use general or local exhaust ventilation to meet TLV requirements.

EXPOSURE LIMITS

<u>Component</u>	<u>Exposure Limits</u>	<u>Skin Form</u>
Ethylene glycol	100 mg/m ³ CEILING ACGIH	Aerosol
Ethylene glycol	125 mg/m ³ CEILING OSHA-vacated 50 ppm CEILING OSHA - vacated 100 mg/m ³ CEILING UCC	
Diethylene glycol	50 ppm TWA& AIHA WEEL	Aerosol and Vapor
Diethylene glycol	10 mg/m ³ TWA& AIHA WEEL	Aerosol and Vapor Aerosol

In the Exposure Limits Chart above, if there is no specific qualifier (i.e., Aerosol) listed in the Form Column for a particular limit, the listed limit includes all airborne forms of the substance that can be inhaled.

A "Yes" in the Skin Column indicates a potential significant contribution to overall exposure by the cutaneous (skin) route, including mucous membranes and the eyes, either by contact with vapors or by direct skin contact with the substance. A "Blank" in the Skin column indicates that exposure by the cutaneous (skin) route is not a potential significant contributor to overall exposure.

9. PHYSICAL / CHEMICAL PROPERTIES

Boiling Range:	171 - 175°C (339 - 348°F)
Freeze Point:	-18°C (0°F)
Specific Gravity (Water =1):	1.12
Pounds/Gallons:	9.3
Vapor Pressure (mm of Hg) @ 20°C:	<0.1
Vapor Density (air=1):	2.1
Water Solubility:	Complete
Evaporation Rate (BuAc = 1):	Nil
% Volatile By Volume:	97.0
Appearance:	Green
Odor:	Mild
pH (50% Water Solution):	10.5-11.0
Fleet Cool Antifreeze	

10. STABILITY & REACTIVITY DATA

Stability:	Stable
Conditions to Avoid:	Keep away from flame
Incompatibility (Materials to Avoid):	Strong acid or oxidizing agents
Hazardous Decomposition Products:	Incomplete combustion may produce CO gas
Hazardous Polymerization:	Will not occur

11. TOXICOLOGICAL INFORMATION

Skin: The dermal LD50 has not been determined.

Ingestion: The lethal dose in humans is estimated to be 100 ml (3 ozs.). The oral LD50 for rats is in the 6000-13,000-mg/kg range.

Mutagenicity (The Effects on Genetic Material): In vitro mutagenicity studies were negative. Animal mutagenicity studies were negative.

Significant Data with Possible Relevance to Humans: Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentrations or doses. The no-effect doses for developmental toxicity for ethylene glycol given by gavage over the period of organogenesis has been shown to be 150 mg/kg/day for the mouse and 500 mg/kg/day for the rat. Also, in a preliminary study to assess the effects of exposure of pregnant rats and mice to aerosols at concentrations of 150, 1000 and 25000 mg/m³ for 6 hours a day throughout the period of organogenesis, teratogenic effects were produced at the highest concentration, but only in mice. The conditions of these latter experiments did not allow a conclusion as to whether the developmental toxicity was mediated by inhalation of aerosol, percutaneous absorption of ethylene glycol from contaminated skin, or swallowing ethylene glycol as a result of grooming the wetted coat. In a further study, comparing effects from high aerosol concentration by whole-body or nose-only exposure, it was shown that nose-only exposure resulted in maternal toxicity (1000 and 25000 mg/m³) and developmental toxicity with minimal evidence of teratogenicity (2500 mg/m³). The no-effects concentration (based on maternal toxicity) was 500 mg/m³. In a further study in mice, no teratogenic effects could be produced when ethylene glycol was applied to skin of pregnant mice over the period of organogenesis. The above observations suggest that ethylene glycol is to be regarded as an animal teratogen. There is currently no available information to suggest that ethylene glycol has caused birth defects in humans. Cutaneous application of ethylene glycol is ineffective in producing developmental toxicity. Exposure to high aerosol concentrations is only minimally effective in producing developmental toxicity. The major route for producing developmental toxicity is perorally. Two chronic feeding studies, using rats and mice, have not produced any evidence that ethylene glycol causes dose-related increases in tumor incidence or a different pattern of tumors compared with untreated controls. The absence of carcinogenic potential for ethylene glycol has been supported by numerous in vitro genotoxicity studies showing that it does not produce mutagenic or clastogenic effects.

A chronic dietary feeding study of diethylene glycol with rats showed mild kidney injury at 1%, while concentrations of 2% and 4% caused more marked kidney injury. In addition, at 2% and 4% of diethylene glycol in the diet, some rats developed benign papillary tumors in the urinary bladder. These have been attributed to the presence of urinary bladder calcium oxalate stones. No evidence for carcinogenicity was found with a chronic skin-painting study with diethylene glycol in mice. The absence of a direct chemical carcinogenic effect accords with the results in vitro genotoxicity studies that show that it does not produce mutagenic or clastogenic effects. A feeding study employing up to 5.0% diethylene glycol in the diet failed to produce any teratogenic effects. In a mouse continuous breeding study with large doses of diethylene glycol in drinking water, there was evidence for

reproductive toxicity at 3.5% (equivalent to 6.1 g/kg/day) as reduced number of litter, live pups per litter and live pup weight. No such effects were seen at 1.75% (approximately 3.05 g/kg/day). The relevance of these very high dosages to human health is uncertain. Pregnant rats receiving undiluted diethylene glycol by gavage over the period of organogenesis had toxic effects at 4.0 and 8.0 ml/kg/day as mortality, decreased body weight, decreased food consumption increased water consumption and increased liver and kidney weights. Fetotoxicity was seen only at these maternally toxic dosages. Decreased fetal body weight occurred at 8.0 ml/kg/day, and increased skeletal variants at 4.0 and 8.0 ml/kg/day. No embryotoxic or teratogenic effects were seen. Neither maternal toxicity nor fetotoxicity occurred at 1.0 ml/kg/day. In a study with mice also receiving undiluted diethylene glycol over the period of organogenesis, maternal toxicity occurred at 2.5 and 10.0 ml/kg/day, but not at 0.5 ml/kg/day. Definitive developmental toxicity was not seen in this species.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE

Movement & Partitioning: Bioconcentration potential is low (BCF less than 100 or Log Kow less than 3). Log octanol/water partition coefficient (log Kow) is -1.36. Henry's Law Constant (H) is 6.0E-08 atm-m³/mol. Bioconcentration factor (BCF) is 10 in golden orfe.

Degradation & Transformation: Biodegradation under aerobic static laboratory conditions is high (BOD₂₀ or BOD₂₈/ThOD greater than 40%). 5-Day biochemical oxygen demand (BOD₅) is 0.78 p/p. 10-Day biochemical oxygen demand (BOD₁₀) is 1.06 p/p. 20-Day biochemical oxygen demand (BOD₂₀) is 1.15 p/p. Theoretical oxygen demand (ThOD) is calculated to be 1.29 p/p. Biodegradation may occur under both aerobic and anaerobic conditions (in either the presence or absence of oxygen). Inhibitory concentration (IC₅₀) in OECD "Activated Sludge, Respiration Inhibition Test" (Guideline # 209) is < 1000 mg/L. Degradation is expected in the atmospheric environment within days to weeks.

Ecotoxicology: Material is practically non-toxic to aquatic organisms on an acute basis (LC₅₀ greater than 100 mg/L in most sensitive species). Acute LC₅₀ for fathead minnow (*Pimephales promelas*) is 51000 mg/L. Acute LC₅₀ for bluegill (*Lepomis macrochirus*) is 27549 mg/L. Acute LC₅₀ for rainbow trout (*Oncorhynchus mykiss*) is about 18000-46000 mg/L. Acute LC₅₀ for guppy (*Poecilia reticulata*) is 49300 mg/L. Acute LC₅₀ for water flea (*Daphnia magna*) is 46300-51100 mg/L. Acute LC₅₀ for the cladoceran *Ceriodaphnia dubia* is 10000-25800 mg/L. Acute LC₅₀ for crayfish is 91430 mg/L. Acute LC₅₀ for brine shrimp (*Artemia salina*) is 20000 mg/L. Acute LC₅₀ for golden orfe (*Leuciscus idus*) is greater than 10000 mg/L. Acute LC₅₀ for goldfish (*Carassius auratus*) is greater than 5000 mg/L. Growth inhibition EC₅₀ for green alga *Selenastrum capricornutum* is 9500-13000 mg/L.

13. DISPOSAL CONSIDERATIONS

DO NOT discharge to sewer. Wear appropriate personal protection. Take up with sand, vermiculite, or similar inert material. Dispose in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

Non-Bulk

Not regulated by the US D.O.T. (in quantities under 5,000 lbs in any one inner package)

Bulk

Proper Shipping Name: Environmentally Hazardous Substance, LIQUID N.O.S. (ETHYLENE GLYCOL)
Technical Name: ETHYLENE GLYCOL
ID Number: UN 3082
Hazard Class: 9
Packing Group: PG III
Reportable Quantity: 5,000 lb.

IATA

Non-Bulk

Not Regulated by IATA

IMDG

Non-Bulk

Not regulated by the US D.O.T. (in quantities under 5,000 lbs in any one inner package)

15. REGULATORY INFORMATION

THIS PRODUCT CONTAINS COMPONENT(S) CITED ON THE FOLLOWING REGULATIONS.

<u>Chemical Name</u>	<u>Cas Number</u>
Ethylene Glycol	107-21-1

United States - TSCA

Inventory: Listed

Water Standards: No data available

Atmospheric Standards: Clean Air Act (1990) - List of Hazardous Air Contaminants: listed

CERCLA: Reportable Quantity (RQ): 5,000 pounds (532 gallons)

SARA Title III: Section 311/312 - Categories: Acute hazard; chronic hazard

Section 312 - Inventory Reporting: Ethylene glycol is subject to Tier I and/or Tier II annual inventory reporting.

Section 313 - Emission Reporting: Ethylene glycol is subject to Form R reporting requirements.

Section 302 - Extremely Hazardous Substances: Ethylene glycol is not listed.

State Right-To-Know:

California - Exposure Limits - Ceilings: vapor-50 ppm ceiling; 125 mg/m³ ceiling

Director's List of Hazardous Substances: listed

Florida - Hazardous Substances List: listed

Massachusetts - Right-to-Know List: listed

Minnesota - Haz. Subs. List: listed (particulate and vapor)

New Jersey - Right-to-Know List (Total): Present greater than 1.0%

Pennsylvania Right-to-Know List: environmental hazard

Fleet Cool Antifreeze

Canadian Regulations: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required.

WHMIS Information: D2A - material has potential toxic effects. Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): This product contains the following chemical(s) known to the State of California to cause cancer:

<u>Component</u>	<u>CAS#</u>	<u>Amount</u>
1,4 - Dioxane	123-91-1	<=0.0086%
Acetaldehyde	75-07-0	<=0.1000PPM

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): This product contains the following chemical(s) known to the State of California to cause birth defects and/or other reproductive harm

<u>Component</u>	<u>CAS#</u>	<u>Amount</u>
Ethylene glycol monomethyl ether	109-86-4	<=0.0009%

California SCAQMD Rule 443.1 (South Coast Air Quality Management District Rule 443.1, Labeling of Materials Containing Organic Solvents):

VOC: Vapor pressure 0.06 mmHg at 20°C
1113.38 g/l

16. OTHER INFORMATION

Contact: Thomas Cholke

Phone: (847) 559-2225

Old World Industries, Inc. makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, Inc. as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, Inc. assume liability arising out of the use by others of this product referred to herein. The data in this MSDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

MSDS Material Safety Data Sheet

THE PENRAY COMPANIES, INC



PENCOOL 200016

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MSDS Number: 200016

Revision Date: 6/11/03

1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

THE PENRAY COMPANIES INC.
440 Denniston Ct

Wheeling, IL 60090

Contact: EH&S Manager
Telephone Number: (847) 459-5000
FAX Number: (847) 459-5043
E-Mail:
Web:

Product Name: PENCOOL 200016
Revision Date: 6/11/03
MSDS Number: 200016
Common Name: AN AQUEOUS SOLUTION OF NITRITES, NITRATES AND SODIUM TETRABORATE
EMERGENCY PHONE NUMBER (800) 752-7868

NFPA 704M RATING:

HEALTH:1 FIRE:0 REACTIVITY:0 SPECIAL:

0=INSIGNIFICANT 1=SLIGHT 2=MODERATE 3=HIGH 4=EXTREME

2 COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	PERCENT WEIGHT
SODIUM NITRITE	7632-00-0	3-8%
SODIUM METASILICATE	6834-92-0	2-7%
SODIUM TETRABORATE	1330-43-4	2-6%
SODIUM NITRATE	7632-99-4	1-3%
SODIUM HYDROXIDE	1310-73-2	1-5%
WATER	6771-18-5	>80%

3 HAZARDS IDENTIFICATION

Route of Entry: Skin absorption, inhalation, eye contact, ingestion
Target Organs: None Known
Inhalation: No hazard in industrial use.
Skin Contact: Prolonged contact with skin can cause irritation.
Eye Contact: Will cause irritation upon contact.
Ingestion: Irritating to mouth, throat, and stomach. May cause discomfort, nausea vomiting and diarrhea.

CARCINOGENICITY: Product is not considered a carcinogen by OSHA, NTP or IARC.

MEDICAL CONDITIONS: Pre-existing eye or skin conditions may be aggravated by over-exposure to this product.

MSDS Material Safety Data Sheet

THE PENRAY COMPANIES, INC



PENCOOL 200016

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MSDS Number 200016

Revision Date: 6/11/03

4 FIRST AID MEASURES

- Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. Seek medical attention. Inhalation hazard unlikely due to low volatility of product.
- Skin Contact:** Wash area with soap and water. seek medical attention if irritation persists.
- Eye Contact:** Immediately flush eyes with plenty of water for 15 minutes. Seek medical attention.
- Ingestion:** Induce vomiting. Only give CONSCIOUS victim two glasses of water and seek medical attention. NEVER give UNCONSCIOUS anything by mouth.

5 FIRE FIGHTING MEASURES

- Flash Point:** N/A
- Other:**
Product will not support combustion

6 ACCIDENTAL RELEASE MEASURES

- SPILL/LEAK PROCEDURES:** Notify safety personnel, evacuate all unnecessary personnel and provide adequate ventilation. If feasible, and without risk, clean-up personnel should stop leak. All clean up personnel should wear proper personal protective equipment.
- SMALL SPILLS:** Clean with inert absorbent and place in recovery drums for disposal.
- LARGE SPILLS:** Dike to prevent further migration of material. DO NOT release into waterways or sewers. Follow applicable federal and state regulations.

7 HANDLING AND STORAGE

- Handling Precautions:** Wash thoroughly after handling. Do not get into eyes, on skin or on clothing. Do not smoke while using this product. Do not use near excessive heat, sparks, or open flame.
- Storage Requirements:** Store in clean, dry locations away from excessive heat.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering Controls:** Eye wash station and safety shower.
Strong general ventilation or local exhaust.
- Protective Equipment:** EYE: Chemical splash goggles with indirect or no ventilation.
SKIN: Chemical resistant gloves such as nitrile.
RESPIRATORY: Organic vapor air purifying respirator if vapors are a nuisance or if the concentrations are above PEL or TLV.
Never eat, drink or smoke in the work area.

Never eat, drink or smoke in work area

MSDS Material Safety Data Sheet

THE PENRAY COMPANIES, INC



PENCOOL 200016

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MSDS Number: 200016

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9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Red liquid	Boiling Point:	BT 212 - 215 F
Physical State:	Liquid	Freezing/Melting Pt.:	
Odor:	None	Solubility:	Completely
pH:	12.0	Spec Grav./Density:	1.09
Vapor Pressure:			
Vapor Density:	>1		

10 STABILITY AND REACTIVITY

Stability:	Material is stable.
Conditions to avoid:	Excessive heat and open flame.
Materials to avoid (incompatibility):	Strong oxidizing agents and reducing agents
Hazardous Decomposition products:	Carbon Monoxide and Carbon Dioxide
Hazardous Polymerization:	Cannot occur.

11 TOXICOLOGICAL INFORMATION

LD50
Sodium Nitrite : 120 mg/kg (oral)
Sodium Nitrate : 4300mg/kg (oral)
Sodium Tetraborate: 3200 mg/kg (oral)

12 ECOLOGICAL INFORMATION

No data

13 DISPOSAL CONSIDERATIONS

As a waste, this product in its raw form DOES NOT MEET the criteria of a hazardous waste as defined by RCRA (40CFR361).
Dispose of in accordance with all applicable state, federal and local regulations.

14 TRANSPORT INFORMATION

DOMESTIC:
Not Regulated

EXPORT:
Not Regulated

MSDS Material Safety Data Sheet

THE PENRAY COMPANIES, INC



PENCOOL 200016

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15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

OSHA: Considered to be a hazardous material as defined by 29CFR1910.1200

EPA SARA TITLE III

Section 311-312 (40CFR370): If stored in excess of the threshold quantities, this product should be reported as a(n):

IMMEDIATE (acute) HEALTH HAZARD

Section 313(40CFR372) This product does not contains ingredients which are subject to the reporting requirements of SARA 313:

16 OTHER INFORMATION

CALIFORNIA PROPOSITION 65: This product does not contain ingredients which are on the current Proposition 65 list.

NEW JERSEY RIGHT-TO-KNOW: This product contains the following ingredients which are non-hazardous, but are among the top five ingredients in this product:

-----CAS#-----

7732-18-5: Water

7631-89-4: Sodium Nitrate

7631-90-0: Sodium Nitrate

0230-43-4: sodium Tetraborate

Notes

NG= NOT GIVEN

BT= BETWEEN

<= LESS THAN

>= GREATER THAN

USERS RESPONSIBILITY: This MSDS provides environmental, health and safety information. This product is to be used in applications consistent with our product literature and container label. Individuals handling this product should be informed to the recommended safety precautions and have access to this MSDS. Please contact your local sales representative of our EH&S Department for further information.

END OF MSDS

END OF MSDS DOCUMENT

Initial Preparation Date: 8/17/01
Effective Date: 1/22/02

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTITY: ALL WEATHER® -20° WASH

1. CHEMICAL PRODUCT & COMPANY INFORMATION

OLD WORLD INDUSTRIES, INC.
4065 COMMERCIAL AVENUE
NORTHBROOK, ILLINOIS 60062
PHONE: 847-559-2000
EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC)

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>MATERIAL</u>	<u>CAS#</u>	<u>% BY WT</u>	<u>8-Hour Time Weighted Avg. (TWA)</u>
Methanol	67-56-1	<33	200 ppm (260 Mg/M ³)

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Slight odor.

May be fatal if swallowed.

Vapors can cause eye irritation.

LD50 Rat (Oral): 16,884 mg/kg (33% methanol concentration)
LD50 Rabbit (Skin): 60 g/kg (33% methanol concentration)
Carcinogeny: No

All Weather Wash 20

National Toxicology Program: No
International Agency for Research on Cancer: No
OSHA Regulated: Yes

HAZARD RATING SYSTEM

HMIS: HEALTH: 2 FLAMMABILITY: 2 REACTIVITY: 0 PERSONAL PROTECTION: A

KEY: 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe A - Safety glasses

POTENTIAL HEALTH EFFECTS

Health Hazards (Acute and Chronic).

Acute:

Acute methanol intoxication is manifested initially by signs of narcosis. This is followed by a latent period in which formic acid accumulates in the body causing metabolic acidosis. Severe abdominal, leg, and back pain occur and visual degeneration can lead to blindness.

1. Humans - Ingestion of 80 to 150 mL of methanol is usually fatal to humans (HSDB 1994). One worker died from exposure to vapor ranging from 4,000 to 13,000 ppm over 12 hours (ACGIH 1991). The concentration of 4,000 ppm is roughly equivalent to a total of 1,140 mg/kg over the 12-hour period (see end note 2). Poisoning by nonlethal doses can be described in three stages: (1) narcotic stage similar to ethanol; (2) latent period of 10-15 hours; (3) visual disturbances and central nervous system lesions (Rowe and McCollister 1981). Visual disturbances can lead to blindness due to edema of the retina and atrophy of the optic nerve head (HSDB 1994). Third-stage CNS lesions include headache, dizziness, abdominal, back, and leg pain, delirium that can lead to coma, and nausea (HSDB 1994). Formic acid production causes severe metabolic acidosis (Rowe and McCollister 1981).
2. Animals - Oral LD50 values for methanol in animals are 0.4 g/kg in the mouse, 6.2 to 13 g/kg in the rat, 14.4 g/kg in the rabbit, and 2 to 7 g/kg in the monkey (Rowe and McCollister 1981). The LD50 for dermal application to rabbits is 20 mL/kg (approximately 16 g/kg) (Rowe and McCollister 1981). Dose-response data for inhalation vary with species, dose, and duration (8,800 ppm for 8 hours to 152,800 ppm for 94 minutes). Symptoms of intoxication include incoordination, salivation, lethargy, narcosis, and death (Rowe and McCollister 1981).

Subchronic/Chronic:

Chronic exposure to methanol, either orally or by inhalation, causes headache, insomnia, gastrointestinal problems, and blindness in humans and hepatic and brain alterations in animals. EPA has derived an oral RfD (reference dose) (see end note 3) for methanol of 0.5 mg/kg/day, based on the absence of liver and brain effects in animals exposed by mouth to 500 mg/kg/day.

1. Humans - "Chronic" exposure to methanol vapors (no time or dose given) caused conjunctivitis, headache, giddiness, insomnia, gastric disturbances, and bilateral blindness (ACGIH 1991). Marked vision loss occurred in one worker exposed to 1,200 to 8,000 ppm vapor for 4 years (ACGIH 1991).
2. Animals - No effects were seen in rats given 1% (approximately 140 mg/kg/day) methanol in drinking water for 6 months (Rowe and McCollister 1981). Hepatic abnormalities (proteinic degeneration, altered RNA metabolism) occurred in rhesus monkeys given 3 to 6 g/kg for 3 to 20 weeks and in rats given 10, 100, or 500 mg/kg/day for one month (Rowe and McCollister 1981). Rabbits chronically fed methanol (no

dose or time given) had increasing blood levels, brain and eye edema, and myelin thinning (HSDB 1994). Male and female rats were gavaged with 100, 500, or 2,500 mg/kg/day for 90 days (U.S. EPA 1994). Increased levels of SGPT and SAP as well as decreased brain weights were seen in both sexes at the highest dose; a no-observed-adverse effect level (NOAEL) for the study was 500 mg/kg/day. Based on these data, the U.S. EPA (1994) calculated a chronic RfD (see end note 4) for methanol of 0.5 mg/kg/day. No toxic effects were seen in dogs exposed by inhalation to either 10,000 ppm for 3 minutes, 3x/day, for 100 days or to 450 or 500 ppm, 8 hours/day for 379 days (Rowe and McCollister 1981). Ultrastructural changes were observed in the photoreceptor cells of rabbits exposed to 46.6 ppm for 6 months (Rowe and McCollister 1981). Rowe and McCollister (1981) concluded that the effects of combined oral and inhalation exposure appear to be additive. Rats exposed by inhalation to 16.8 ppm, 4 hours/day, for 6 months and administered 0.7 mg/kg/day orally had changes in blood morphology, oxidation-reduction processes, and liver function (Rowe and McCollister 1981).

Carcinogenicity:

No information was found on the carcinogenicity of methanol in the secondary sources searched.

1. Humans -- No information was found in the secondary sources searched concerning the carcinogenicity of methanol to humans.
2. Animals - No information was found in the secondary sources searched concerning the carcinogenicity of methanol to animals. The NTP has assigned a project leader for methanol and the design of the study is in progress (NTP 1994).

4. FIRST AID MEASURES

Ensure physician has access to this MSDS.

Routes of Entry: Inhalation, Skin, Ingestion

Signs and Symptoms of Exposure:

Eye Contact: May cause eye irritation.

Skin Contact: Frequent or prolonged contact may cause skin irritation experienced as burning, drying, cracking and redness.

Inhalation: May cause nose and throat irritation. High concentrations may cause acute central nervous system depression characterized by headaches, dizziness, nausea and confusion.

Skin Absorption Health Risks and Symptoms of Exposure: Harmful quantities of Methyl Alcohol may affect eyes and central nervous system.

Ingestion Health Risks and Symptoms of Exposure: May cause nausea, abdominal pain, headache, shortness of breath, visual impairment and blindness. Severe poisoning can cause coma and death.

Medical Conditions Generally Aggravated by Exposure: Ingestion of large amounts of Methyl Alcohol has been shown to damage organs including liver, kidney, pancreas, heart, lungs and brain. Although this rarely occurs, survivors of severe intoxication may suffer permanent neurological damage. Overexposure may aggravate pre-existing disorders of the eyes.

People have died as a result of drinking large amounts of methanol. Drinking smaller, non-lethal amounts of methanol adversely affects the human nervous system. Effects range from headaches to incoordination similar to that associated with drunkenness. Delayed effects such as severe abdominal, leg, and back pain can follow the inebriation effects of methanol. Loss of vision and even blindness can also occur after exposure to amounts of methanol causing inebriation. These effects are not likely to occur at levels of methanol that are normally found in the environment.

Human health effects associated with breathing or otherwise consuming smaller amounts of methanol over long periods of time are not known. Workers repeatedly exposed to methanol have experienced several adverse effects. Effects range from headaches to sleep disorders and gastrointestinal problems to optic nerve damage. Laboratory studies show that repeat exposure to large amounts of methanol in air or in drinking water cause similar adverse effects in animals.

TREATMENT

Eyes: Flush with large quantities of water for 15 minutes and seek medical attention.

Skin: Remove contaminated clothing and wash contaminated skin with large amounts of soap and water. If irritation persists, get medical attention. Launder clothing before reuse.

Inhalation: Remove to fresh air. If breathing has stopped, apply artificial respiration. If breathing is difficult, give oxygen provided a qualified operator is available. Get medical attention.

Ingestion: Notes to Physician: This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood hemodialysis. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions), liver, kidney, central nervous system, pancreas, heart). Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.

If swallowed, induce vomiting of conscious patient immediately by giving two glasses of water and pressing finger down throat. Drink a large amount of water, milk or sodium bicarbonate to dilute material in stomach. (Never give anything by mouth to an unconscious person.) Call Poison Control Center, hospital emergency room or physician immediately.

5. FIRE FIGHTING MEASURES

FIRE & EXPLOSION HAZARD DATA

Flammable Properties

Flash Point: 92° F
Method Used: TCC

Flammability Limits - % of vapor concentration at which methanol can ignite in presence of spark

LEL: 6.0%
UEL: 36.0%

Hazardous Combustion Products: Methanol

Extinguishing Media: Foam, dry chemical, carbon dioxide or any Class B extinguishing agent. Water may be unsuitable as an extinguishing medium but helpful in keeping adjacent containers cool

Fire Fighting Instructions: Use water spray to cool fire exposed containers.

Water may be ineffective but may be used to cool exposed containers to prevent pressure buildup and possible auto-ignition or explosion when exposed to extreme heat. If water is used, fog nozzles are preferable.

Unusual Fire and Explosion Hazards: Handle as flammable liquid. Vapors are heavier than air and may travel along the ground or may be moved by ventilation. Vapors form an explosive mixture in air between the upper and lower explosive limits which can be ignited by many sources, such as pilot lights, open flames, electrical motors and switches.

Protective Equipment For Fire Fighters: Wear NIOSH approved self-contained breathing apparatus with full face piece and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Small Spill

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill

Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred.

7. HANDLING AND STORAGE

Do not swallow. Store in closed containers in a cool, dry, well-ventilated area. Keep away from sparks and open flame.

Respiratory Protection: Use approved NIOSH respirator when TLV is exceeded.

Ventilation: Provide sufficient ventilation to maintain exposure below TLV.

Protective Gloves: Wear appropriate impermeable gloves.

Eye Protection: Use chemical safety glasses, goggles and face shields for eye protection.

Other Protective Clothing or Equipment Long sleeves and apron are recommended.

Work / Hygienic Practices: Avoid prolonged or repeated skin contact.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye Protection:

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection:

Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protection:

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respiratory is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls:

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines:

Component

Methyl Alcohol (67-56-1)

OSHA VPEL 200.000 ppm - TWA (skin)

OSHA VPEL 250.000 ppm - STEL (skin)

ACGIH TLV 200.000 ppm - TWA (skin)

ACGIH TLV 250.000 ppm - STEL (skin)

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Range:	177° F - 181° F
Specific Gravity (Water =1):	.96 @ 20° C
Vapor Pressure (mm of Hg):	43 @ 20° C
Vapor Density (Air=1):	Heavier than air
Water Solubility:	Soluble
Appearance:	Clear blue liquid
Odor:	Mild alcohol odor
Evaporation Rate:	Greater than n-butyl acetate

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: Ignition sources, such as heat, sparks and flames

Incompatibility (Materials to Avoid): Strong acids and strong oxidizing agents

Hazardous Decomposition Products: Burning can produce carbon monoxide and/or carbon dioxide. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant.

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

Mutagenicity (The Effects On Genetic Material):

Genotoxicity:

Methanol was negative for cell transformation in Syrian hamster embryo cells (clonal assay and viral enhanced), sister chromatid exchange in vitro, and for aneuploidy and chromosome aberrations in *Neurospora crassa* (GENETOX 1992). The micronucleus test and the assay for chromosome aberrations in mammalian polychromatic erythrocytes were inconclusive (GENETOX 1992).

Developmental/Reproductive Toxicity:

No information was found on the developmental toxicity of methanol in humans. Methanol can cause adverse effects in the developing offspring in rats at doses that cause overt maternal intoxication.

1. Humans - No information was found in the secondary sources searched regarding the developmental or reproductive toxicity of methanol to humans. However, one of the breakdown products of the artificial sweetener aspartame is methanol. Increased blood methanol levels did not lead to increased formic acid levels in women receiving up to 200 mg/kg aspartame (no other details reported) and no evidence of fetal risk was detected (HSDB 1994).
2. Animals - Rats were exposed by inhalation, 7 hours/day, to 5,000 or 10,000 ppm methanol on gestation days 1-19 or to 20,000 ppm on days 7-15. Maternal intoxication (unsteadiness) occurred at the highest dose and coincided with extra or rudimentary ribs and urinary or cardiovascular defects in the fetuses (ACGIH 1991). Male rats had significantly lowered testosterone levels after inhalation exposure to 200 ppm methanol for 6 weeks; at 10,000 ppm a change in luteinizing hormone was also observed (HSDB 1994).

Neurotoxicity:

Methanol causes *central* nervous system depression in humans and animals as well as degenerative changes in the *brain* and visual system.

1. Humans - Methanol causes narcosis similar to ethanol intoxication and nonlethal doses can lead to blindness. Autopsy of individuals after lethal doses revealed edema and hyperemia of the brain and degeneration of the ganglion cells of the retina (Rowe and McCollister 1981).
2. Animals - Acute methanol intoxication in animals causes CNS depression as observed by narcosis, incoordination, lethargy, drowsiness, and prostration (Rowe and McCollister 1981).

Significant Data With Possible Relevance To Humans:

Pharmacokinetics:

1. Absorption - Methanol is readily absorbed after oral, inhalation, or dermal exposure. Oral doses in humans of 71 to 84 mg/kg resulted in blood levels of 4.7 to 7.6 mg/100 mL of blood within 3 hours (Rowe and McCollister 1981). Inhalation of 500 to 1,000 ppm methanol for 3 to 4 hours gave urine concentrations of 1 to 3 mg methanol/100 mL of urine at the end of exposure (Rowe and McCollister 1981). Based on urinary methanol levels, the rate of absorption of the chemical appears to be proportional to the concentration of vapor inhaled (HSDB 1994). The rate of dermal absorption increased for 35 minutes then decreased over the next 25 minutes (no other details given) (HSDB 1994).
2. Distribution - Methanol distributes rapidly in dogs exposed to 4,000 to 15,000 ppm for 12 hours to 5 days; the highest concentrations of the chemical were found in blood, eye fluid, bile, and urine (HSDB 1994).
3. Metabolism - Methanol is oxidized in the human liver by the enzyme alcohol dehydrogenase (Rowe and McCollister 1981). Metabolic products include formaldehyde and formic acid (HSDB 1994). The rate of metabolism for methanol (25 mg/kg/hr) is much slower than for ethanol (175 mg/kg/hr) and is independent of concentrations in the blood (HSDB 1994). Formic acid is responsible for the toxic effects of methanol (ACGIH 1991).
4. Excretion - Methanol is excreted either as parent compound in the urine or expired air, or as the formic acid metabolite in urine (Rowe and McCollister 1981; HSDB 1994). The amount of formic acid excreted varies greatly with species from 1% in rabbits to 20% in dogs; humans are intermediate (HSDB 1994). In humans, the half-life of methanol elimination in expired air after oral or dermal exposure is 1.5 hours (HSDB 1994).

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE

Methanol evaporates when exposed to air. It dissolves completely when mixed with water. Most direct releases of methanol to the environment are to air. Methanol also evaporates from water and soil exposed to air. Once in air, it breaks down to other chemicals. Microorganisms that live in water and in soil can also break down methanol. Because it is a liquid that does not bind well to soil, methanol that makes it way into the ground can move through the ground and enter groundwater. Plants and animals are not likely to store methanol.

Methanol by itself is not likely to cause environmental harm at levels normally found in the environment. Methanol can contribute to the formation of photochemical smog when it reacts with other volatile organic carbon substances in air.

Movement & Partitioning:

The miscibility of methanol in water and a low KOC (9) indicate that the chemical will be highly mobile in soil (HSDB 1994). Volatilization half-lives from a model river and an environmental pond were estimated at 4.8 days and 51.7 days, respectively (HSDB 1994). Methanol can be removed from the atmosphere in rain water (HSDB 1994).

Degradation & Transformation:

1. Air – Once in the atmosphere, methanol exists in the vapor phase with a half life of 17.8 days (HSDB 1994). The chemical reacts with photochemically produced hydroxyl radicals to produce formaldehyde (HSDB 1994). Methanol can also react with nitrogen dioxide in polluted air to form methyl nitrite (HSDB 1994).
2. Soil – Biodegradation is the major route of removal of methanol from soils. Several species of *Methylobacterium* and *Methylomonas* isolated from soils are capable of utilizing methanol as a sole carbon source (CHEMFATE 1994).
3. Water – Most methanol is removed from water by biodegradation. The degradation products of methane and carbon dioxide were detected from aqueous cultures of mixed bacteria isolated from sewage sludge (CHEMFATE 1994). Aerobic, Gram-negative bacteria (65 strains) isolated from seawater, sand, mud, and weeks of marine origin utilized methanol as a sole carbon source (CHEMFATE 1994). Aquatic hydrolysis, oxidation, and photolysis are not significant fate processes for methanol (HSDB 1994).
4. Biota – Bioaccumulation of methanol in aquatic organisms is not expected to be significant based on an estimated bioconcentration factor of 0.2 (HSDB 1994).

Ecotoxicology:

1. Toxicity to Aquatic Organisms – Methanol has low acute toxicity to aquatic organisms; lethal concentrations are much greater than 100 mg/L. Ninety-six hour LC50 values for fish are 28,100 mg/L for *Pimephales promelas* (fathead minnow), 20,100 mg/L for *Oncorhynchus mykiss* (rainbow trout), and >28,000 mg/L for *Alburnus alburnus* (bleak) (AQUIRE 1994). Forty-eight hour LC50 values for *Cyprinus carpio* (common carp) and *Carassius auratus* (goldfish) are 28,000 mg/L and 1,700 mg/L, respectively (AWQUIRE 1994). Growth inhibition occurred for 4 strains of *Anabaena* (blue-green algae) over a range of EC50s of 2.57%-3.13% for 10-14 days (AQUIRE 1994). The LC50 for *Artemia salina* (brine shrimp) is >10,000 mg/L in 24 hours and that for *Culex restuans* (mosquito) is 20,000 mg/L in 18 hours (AQUIRE 1994).
2. Toxicity to Terrestrial Organisms – No information was found in the secondary sources searched regarding the toxicity of methanol to terrestrial organisms. However, based on the range of oral LD50s, 0.4 to 14.2 g/kg, for monkeys, rats, mice, and rabbits (Rowe and McCollister 1981), it is unlikely that methanol would be toxic to terrestrial animals at environmental levels.

3. Abiotic Effects – Methanol reacts with nitrogen dioxide in polluted atmospheres to produce methyl nitrite (HSDB 1994). According to the definition provided in the Federal Register (1992), methanol is a volatile organic compound (VOC) substance. As a VOC, methanol can contribute to the formation of photochemical smog in the presence of other VOCs.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

(U.S. D.O.T.) – U. S. Department of Transportation

Proper Shipping Name: Consumer Commodity ORM-D
Per 49 CFR Part 173.10 (PG III, inner packaging no more than 5.0 L)

(IATA) International Air Dangerous Good Regulations

Proper Shipping Name: Flammable Liquid, n.o.s. (Methanol)
ID #: UN 1993
Class: 3
Hazard Label: Flammable Liquid
PG: III
Ltd. Qty. Packaging Instruction: Y309 (Max qty. per package 10L)
Special Provision: A3

(IMDG) International Maritime Dangerous Goods

Not IMDG regulated according to IMDG Code – Page 3003 Part 1.1.1

15. REGULATORY INFORMATION

THIS PRODUCT CONTAINS COMPONENT(S) CITED ON THE FOLLOWING REGULATIONS:

<u>CHEMICAL NAME</u>	<u>CAS NUMBER</u>
Methanol	67-56-1

U.S. Federal Regulations

TSCA (Toxic Substances Control Act) Status – TSCA (UNITED STATES)
The intentional ingredients of this product are listed.

CERCLA RQ – 40 CFR 302.4(a)

<u>Component</u>	<u>RQ (lbs)</u>
Methyl Alcohol	5,000

All Weather Wash –20

SARA 302 Components – 40 CFR 355 Appendix A
None

Section 311/312 Hazard Class – 40 CFR 370.2

Immediate (X) Delayed (X) Fire (X) Reactive () Sudden Release of Pressure ()

SARA 313 Components – 40 CFR 372.65

<u>Section 313 Component(s)</u>	<u>CAS Number</u>	<u>%</u>
Methanol	67-56-1	33

International Regulations

Inventory Status -- DSL (CANADA)

The intentional ingredients of this product are listed.

WHMIS Information: B2, D1A

ECL (SOUTH KOREA)

The intentional ingredients of this product are listed.

EINECS (EUROPE)

The intentional ingredients of this product are listed.

ENCS (JAPAN)

The intentional ingredients of this product are listed.

State and Local Regulations – California Proposition 65

None

New Jersey RTK (Right-to-Know) Label Information

Methyl Alcohol 67-56-1

Pennsylvania RTK (Right-to-Know) Label Information

Methanol 67-56-1

Atmospheric Standards: The Clean Air Act Amendments of 1990 list methanol as a hazardous air pollutant.

16. OTHER INFORMATION

Contact: Tom Cholke

Phone: (847) 559-2225

Old World Industries, Inc. makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by Old World Industries, Inc. as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does Old World Industries, Inc. assume liability arising out of the use by others of this product referred to herein. The data in this MSDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

137-4.5

MATERIAL SAFETY DATA SHEET #137 Page 1 of 2



Distributed by:
1st Ayd Corporation
 1325 Gateway Dr
 Elgin, IL 60123

Date Reviewed: May 3, 2002
 Date Prepared: July 1, 1999
 Emergency Response Number:
 1-800-255-3924

GRAY MEDICATED HANDSOAP		SECTION I	REFERENCE NO _____
PRODUCT NAME OR NUMBER (as it appears on label) Pumice Hand Cleaner			
HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS, HAZARD ID NO. (49 CFR 172.101) None			
ADDITIONAL HAZARD CLASSES (as applicable) None			
CHEMICAL FAMILY Waterless Hand Cleaner		FORMULA	

SECTION II - INGREDIENTS

CAS REGISTRY NO.	%W	%V	CHEMICAL NAME(S)	Listed as a Carcinogen in NTP, IARC or OSHA 1910(c) (specify)
64741-65-7	<35		Isoparaffins	No
9016459	<15		Surfactant	No
	<50		Water	No
88040	<1		Chlorinated Xylenol (Antimicrobial) Antiseptic	No
	<10		Mixture perfums, dya, soaps and conditioners	No
	<5		Pumice	No

SECTION III - PHYSICAL DATA

BOILING POINT _____ °F _____ °C	SPECIFIC GRAVITY (H ₂ O = 1)	.92	
VAPOR PRESSURE _____ °F _____ °C <input type="checkbox"/> mm Hg <input type="checkbox"/> psf	PERCENT VOLATILE BY VOLUME (%)		PERCENT SOLID BY WEIGHT (%)
VAPOR DENSITY (AIR = 1)	EVAPORATION RATE (_____ = 1)		
SOLUBILITY IN WATER Soluble	pH = 7.5 - 8.0		
APPEARANCE AND ODOR Light pink, pleasant odor	IS MATERIAL:	<input type="checkbox"/> GAS	<input checked="" type="checkbox"/> LIQUID PASTE <input type="checkbox"/> SOLID POWDER

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT _____ °F _____ °C method used	FLAMMABLE LIMITS	LEL	UEL
EXTINGUISHING MEDIA Water			
SPECIAL FIRE FIGHTING PROCEDURES None (Non-flammable)			
UNUSUAL FIRE AND EXPLOSION HAZARDS None			

SECTION V - HEALTH HAZARD DATA

#137 Page 2 of 2

EFFECTS OF OVEREXPOSURE - Conditions to Avoid None		THRESHOLD LIMIT VALUE =
		PERMISSIBLE EXPOSURE LIMIT =
Eye contact - Flush with water		OTHER LIMIT: <input type="checkbox"/>
PRIMARY ROUTES OF ENTRY Inhalation <input type="checkbox"/> Skin Contact <input type="checkbox"/> Other (specify) None		
EMERGENCY AND FIRST-AID PROCEDURES In case of accidental ingestion, do not induce vomiting due to danger of aspiration. Call physician.		

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE	
	x	
INCOMPATIBILITY (materials to avoid) None		
HAZARDOUS DECOMPOSITION PRODUCTS: None		
HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Flush with water	
WASTE DISPOSAL METHOD Flush with water. Bio-degradable	
CERCLA (Superfund) REPORTABLE QUANTITY: (in lbs) None	
RCRA HAZARDOUS WASTE NO. (40 CFR 261.33)	
VOLATILE ORGANIC COMPOUND (VOC) (as packaged, minus water)	
<input type="checkbox"/> Theoretical 2 lb/gal	<input type="checkbox"/> Analytical _____ lb/gal

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type) None required		
VENTILATION	LOCAL EXHAUST (Specify Rate) None required	SPECIAL
	MECHANICAL (General) (Specify Rate) None required	OTHER
PROTECTIVE GLOVES (specify type) None required		EYE PROTECTION (specify type) None required
OTHER PROTECTIVE EQUIPMENT None required		

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING To prolong shelf life, store below 120°F	
OTHER PRECAUTIONS	

This information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof. Because the information contained herein may be applied under conditions beyond our control, we assume no responsibility for its use.

MATERIAL SAFETY DATA SHEET

(Complies with OSHA Communication Standard 29CFR 1910.1200 Dept. of Labor.)

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Distributed by:



1st Ayd Corporation
 1325 Gateway Dr
 Elgin, IL 60123

Date Prepared: July 1, 1999
 Emergency Response Number:
 1-800-255-3924

PENETRATING GEL LUBE

#80 Page 1 of 2

PRODUCT CAS REG NO.	COMPOSITION/ WGT. %	ACGIH TLV		OSHA PEL		UNITS
		TWA	STEL	TWA	STEL	
n-Hexane 110-54-3	30-40	50	na	500	na	ppm
Propane/Isobutane/n-Butane 74-98-6	20-30	1000	Asphyxiant	1000	Asphyxiant	ppm
Petrolatum 8009-03-8	1-10	NE	NE	NE	NE	NA
Aliphatic Hydrocarbon Mixture 64742-63-8	1-10	5	10	5	NE	mg/m3
Paraffinic Petroleum Distillate 64742-65-0	15-25	5	10	5	NE	mg/m3
Ethylene/Propylene Copolymer 9010-79-1	1-10	NE	NE	NE	NE	NA

Additional Component Information:
 NA

HEALTH HAZARD DATA (ACUTE AND CHRONIC)

May cause dizziness or narcosis in high vapor concentrations. Will cause defatting of skin. Effects are reversible. Long term exposure (years) to high concentrations of vapor may cause lung, liver or kidney damage. The solvents listed have been reported to affect the central nervous system. Aspiration hazard if swallowed. Eye and skin irritant. May irritate respiratory tract. Deliberately concentrating and inhaling the vapor of the contents may be harmful or fatal.

OTHER:

n-Hexane may damage peripheral nerve tissue.

CARCINOGENICITY:

NA

FIRST AID

Give oxygen. Do not induce vomiting. Wash eyes and skin with water for 15 minutes. Get medical help. Never administer adrenalin following overexposure.

ROUTES OF ENTRY

Ingestion, Inhalation, Skin

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Inhalation - Difficulty in breathing. Skin - redness. Ingestion - vomiting.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Heart Disease, Respiratory Disorders

Boiling Point	-7.1F to >500F
Vapor Pressure at 70F	38
VAPOR DENSITY (AIR=1)	4.0
EVAP. RATE (BUTYL ACETATE=1)	>1
SPECIFIC GRAVITY (WATER=1)	0.7
Solubility	Nil
Appearance	Gold

Odor Solvent
 PH: Not Applicable

STABILITY: STABLE
INCOMPATIBILITY:- Strong oxidizers strong alkalis interhalogen compounds
HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS:- Carbon dioxide, Aldehydes, Ketones, Hydrogen fluoride, perfluoro hydrocarbons, sulfur compounds, calcium oxide
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CALIFORNIA PROPOSITION 65:

NONE

Ozone Depleting Substances:

None

HMTS:

FLAMMABILITY 4, REACTIVITY 0, HEALTH 2

NFPA:

FLAMMABILITY 4, REACTIVITY 0, HEALTH 2

SARA 313 TITLE III - TOXIC CHEMICALS LIST:

n-Hexane (CAS 110-54-3)

DOT Shipping Name:

Consumer Commodity, ORM-D

CONSUMER INFORMATION

Respiratory Protection Equipment
 Use NIOSH approved respirator if TLV limit is exceeded.

VENTILATION:
 Local exhaust - yes

PROTECTIVE GLOVES:
 None required if spraying.

EYE AND FACE PROTECTION:
 Safety glasses.

OTHER PROTECTIVE EQUIPMENT:
 Long Sleeves and Long pants

SAFE HANDLING
 Do not smoke while using. Wash hands after use.

Flash Point -156F
LOWER EXPLOSION LIMIT : 1.0
UPPER EXPLOSION LIMIT : 9.5
EXTINGUISHING MEDIA:- Water fog, carbon dioxide, foam, dry chemical
UNUSUAL FIRE AND EXPLOSION HAZARDS:- Heated cans may burst.
SPECIAL FIRE FIGHTING PROCEDURES Keep containers cool. Use equipment or shielding required to protect against bursting or venting containers.
SPILL PROCEDURES: Use absorbent sweeping compound to soak up material. Put into container. Dispose as hazardous waste.
WASTE DISPOSAL METHODS: Dispose as hazardous waste in accordance with EPA RCRA.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat, sparks, or open flame. Store at temperatures below 120F.
OTHER INFORMATION: When spraying more than one half can continuously or more than one can consecutively, use NIOSH approved respirator.

NFPA 308 Level:
 3

This information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof. Because the information contained herein may be applied under conditions beyond our control, we assume no responsibility for its use.



SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION.

D-A Lubricant

1340 W. 29th St.
Indianapolis, IN 46208
317/923-5321

CHEMICAL EMERGENCY HOTLINE 800 899-9004

PRODUCT NAME: **SYNSURE**

PRODUCT DESCRIPTION: SYNSURE

CHEMICAL FAMILY: SYNTHETIC LUBRICANT

EFFECTIVE DATE: 04/07/03

SUPERCEDES DATE: 03/28/02

Dear Customer:

In compliance with the Superfund Amendments and Reauthorization Act (SARA Title III, Section 313), Federal Hazard Communications Regulations (WHMIS and OSHA 29 CFR 1910.1200) and in the interest of informed use of our product, we are providing you with this Material Safety Data Sheet (MSDS).

This MSDS will be updated regularly to reflect the most recent information in our possession. Please ensure that obsolete MSDS sheets in your files for this part number are discarded.

We THANK YOU for your continued patronage and look forward to providing you with additional quality products and services.

SECTION 2 - HAZARDOUS INGREDIENTS

COMPONENT	CAS #	% WT	PEL	TLV	STEL	UNITS	LC50,PPM	LD50, MG/KG
PROPRIETARY MIXTURE								
	N/A	100	5	5		MG/M3		RATI 50000

SECTION 3 - PHYSICAL DATA

Boiling Pt Deg F/C: >500/>260	Specific Gravity: 0.86 TO 0.92
Vapor Pressure (MM HG): NIL	% Volatile Volume: NIL
Vapor Density (Air=1): N/A	Evaporation Rate: <0.1
Solubility in Water: NEGLIGIBLE	Water/Oil Dist Coeff: 0
Appearance and Odor: Dark fluid with mild odor	
Physical State: LIQUID	PH: N/A
Freeze Pt Deg F/C: N/A	Threshold Odor, PPM: N/A
Other: N/A	VOC: Lbs/Gal = N/A
Grams/Liter = N/A	Grams VOC/Gram Solid = N/A
% VOC: N/A	

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Classification: Combustible at high temp NFPA Rating: 1.1.0
 Combustion products: CO, CO2, Smoke, Sulfur, Nitrogen, Barium and Phosphorous compounds.
 Flash Point Deg F/C: >374/>190 LEL %: N/A % UEL %: N/A %
 Extinguishing Media: Water Fog, Foam, Dry Chemical, CO2, Sand, or Earth.
 UN/NA/PIN#: N/A

Special Fire Fighting Procedures

Firefighters should wear self-contained breathing equipment. Treat as a Class B fire. Use water to cool threatened containers.

Auto Ign. Temp Deg F/C: N/A

Unusual fire and explosion hazards: N/A

Explosion Power: N/A

Impact Sensitive: No

Burning Rate: Low

Static Sensitive: No

PRODUCT NAME: **SYNSURE**
 EFFECTIVE DATE: 04/07/03 SUPERCEDES DATE: 03/28/02

SECTION 5 - HEALTH HAZARD DATA

Product guide: TLV see Section 2 STEL: see Section 2
 Routes of Entry: Skin contact, Eye, Inhalation, Ingestion
 Effects of Overexposure:
 Acute; may cause respiratory system, skin, and/or eye irritation.
 Ingestion may cause nausea, cramps, diarrhea, and other gastrointestinal disorders.
 Chronic; excess mist may cause respiratory problems.
 Excess skin contact may cause dryness and/or sensitization.
 Any suspected carcinogen = or > 0.1%?: NO
 Warning: This product contains a chemical known to cause cancer.
 Emergency and First Aid Procedures
 Eye: Immediately flush with water for 15 minutes and call a physician.
 Inhalation: If affected, remove to fresh air, administer oxygen and call a physician.
 Skin: Wash thoroughly with plenty of water and soap.
 Ingestion: Seek a physician immediately; show MSDS or Label; DO NOT induce vomiting.
 Wash soiled clothing before wearing again.

SECTION 6 - REACTIVITY DATA

Stable: YES Conditions to Avoid: N/A
 Incompatibility (Materials to avoid): YES, strong oxidizing agents
 Hazardous Decomposition Products: YES, combustion products, see Section 4
 Hazardous Polymerization: NO Conditions to Avoid: N/A

SECTION 7 - SPILL OR LEAK PROCEDURES

Listed in SARA Title III, #302: NO #304, Cercla: NO #313: NO
 Steps to be taken in case material is released or spilled:
 Eliminate source if safe to do so. Prevent from entering waterways and drains. Wear suitable personal protective equipment. Dike and absorb with inert material and transfer to a sealed approved container for disposal. Any spill of this material that can enter navigable waters must be reported immediately to the National Response Center (800-424-8802)
 Report Quantity, Lb: N/A Kg: N/A TPQ, Lb: N/A
 Regulations: Other: N/A
 Hazard Waste: NO
 NO.:
 Disposal Method: In accordance with Federal, State, and Local Regulations.
 *** SARA Waste Characteristic: N/A
 *** EPA Hazardous Waste Number: N/A

SECTION 8 - SAFE HANDLING AND PROTECTION INFORMATION

Respiratory Protection: Use only in well ventilated areas.
 Ventilation - Local: Recommended Special: Avoid Heat/Flame
 Mechanical: Required Other: N/A
 Protective Gloves: Oil/Solvent resistant Eye Protection: Safety Glasses/Goggles
 Other Protective Equipment:
 Oil/Solvent resistant clothing and footwear. If ventilation is inadequate, wear approved respiratory equipment.
 Estimated LD50, Mg/Kg: YES, Oral Rat >50000
 Estimated LC50, PPM: NO
 Sensitization: NO
 Irritant: NO Synergistic Agents: NO

PRODUCT NAME: **SYNSURE**
EFFECTIVE DATE: 04/07/03

SUPERCEDES DATE: 03/28/02

SECTION 9 - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing:

Use only in well ventilated areas. Avoid prolonged or repeated breathing of fumes, vapor, or mist. Avoid contact with eyes and skin. DO NOT take internally. Wash thoroughly after using. In case of accident or illness, consult a physician immediately; show label and/or MSDS.

Keep out of reach of children.

Always read and follow directions on product label.

Other precautions:

More technical information (MSDS) available upon request. For professional industrial use only. Good personal hygiene is important. Empty containers retain residue which can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other ignition sources; they may explode and cause injury or death.

The information and recommendations provided herein are believed to be accurate as of the date hereof. However, such information and recommendations are provided without warranty of any kind and D-A Lubricant disclaims any and all liability or legal responsibility for use or reliance upon same.

Permatex, Inc.
 10 Columbus Blvd.
 Hartford, CT 06106 USA
 Telephone: 1-87-Permatex
 (877) 376-2839
 Emergency: 800-255-3924

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 133K ANTI-SEIZE LUBRICANT 8OZ
Item No: 80078
Product Type: Lubricant

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC 64742-52-5	50-60	5 mg/m ³ mist	5 mg/m ³ mist
CALCIUM OXIDE 1305-78-8	15-25	2 mg/m ³	5 mg/m ³
ALUMINIUM POWDER (PYROPHORIC) 7429-90-5	5-15	metal dust, as Al: 10 mg/m ³ TWA	total dust, as Al: 15 mg/m ³ TWA; respirable fraction, as Al: 5 mg/m ³ TWA
GRAPHITE 7782-42-5	1-10	2 mg/m ³ respir.dust	5 mg/m ³ TWA respir.; 15mg/m ³ total
MINERAL OIL 64741-44-2	1-10	5 mg/m ³ TWA	10 mg/m ³ TWA
LITHIUM SOAP 7620-77-1	1-10	Not Listed	Not Listed
SILICA, QUARTZ 14808-60-7	0.1-1.0	0.1 mg/m ³ TWA respirable	0.1 mg/m ³ TWA respirable

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye and skin irritation. May cause nose, throat and respiratory irritation. May cause gastrointestinal irritation. May cause central nervous system (CNS) depression.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.
Signs and Symptoms of Exposure: Overexposure may cause eye and skin redness, difficulty breathing and vomiting. Excessive accidental exposure may cause headache, dizziness, nausea and mild respiratory irritation. Inhalation of dust at levels above recommended exposure limit may cause metallic or sweet taste, irritation of pharynx and possible ulceration with perforation of the nasal septum. Repeated skin contact may cause allergic skin reactions.

Ingredients	Percent	NTP:	ACGIH Carcinogens	IARC:
SILICA, QUARTZ 14808-60-7	0.1-1.0	Known Carcinogen	Not known	Group 1; Vol. 68; 1997

Medical Conditions Recognized as Being Aggravated by Exposure: Persons with respiratory problems such as emphysema and asthma should avoid inhalation.

4. FIRST AID MEASURES

Ingestion: If swallowed, DO NOT induce vomiting. Keep individual calm. Obtain medical attention.
Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.
Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.
Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): Greater than 200 degrees F. Method: Tag Closed Cup
Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.

Product Name: 133K ANTI-SEIZE LUBRICANT 80Z**Item No:** 80078**Special Fire-Fighting Procedures:**

Firefighters should wear self-contained breathing apparatus. Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool.

Hazardous Products Formed by Fire or Thermal

Metal oxide fumes, Oxides of carbon. Incomplete combustion may emit component hydrocarbons.

Decomposition:**Unusual Fire/Explosion Hazards:**

May ignite when sufficient heat is applied.

Lower Explosive Limit:

30% aluminum metal; 1% oil

Upper Explosive Limit:

7% oil

6. ACCIDENTAL RELEASE MEASURES**Spill Procedures:**

Eliminate all sources of ignition. Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE**Storage:**

Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F.

Handling:

Avoid prolonged skin contact. Keep away from eyes. Do not inhale vapors. Do not use near heat, sparks or open flame. Wash hands and face after handling this compound.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Eyes:**

Safety glasses or goggles.

Skin:

Neoprene or nitrile gloves recommended.

Ventilation:

Provide adequate local ventilation to maintain vapor concentration below TLV if misting of oil occurs.

Respiratory Protection:

Use an approved NIOSH organic vapor respirator below the TLV. If TLV is exceeded or overexposure is likely, use positive pressure or self contained breathing apparatus.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance:**

Silver paste

Odor:

PETROLEUM

Boiling Point (°F):

Not determined

pH:

Does not apply

Solubility in Water:

Nil

Specific Gravity:

1.17

VOC Content(Wt.%):

Not determined

Vapor Pressure:

Less than 5 mm Hg

Vapor Density (Air=1):

Not Determined

Evaporation Rate:

Not Determined

10. STABILITY AND REACTIVITY**Chemical Stability:**

Stable at normal conditions

Hazardous Polymerization:

WILL NOT OCCUR

Incompatibilities:

Strong oxidizers, alkalis, mineral acids, selected amines.

Conditions to Avoid:

Do not expose to heat or store at temperatures above 120 F.

Hazardous Products Formed by Fire or Thermal

Metal oxide fumes, Oxides of carbon. Incomplete combustion may emit component hydrocarbons.

Decomposition:**11. TOXICOLOGICAL INFORMATION**

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations.

US EPA Waste Number:

D001

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name:

Unrestricted

Hazard Class:

NONE

Product Name: 133K ANTI-SEIZE LUBRICANT 8OZ

Item No: 80078

UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: None

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.

SARA 313 Information
NONE

CALIFORNIA PROP 65:
No California Prop 65 chemicals are known to be present.

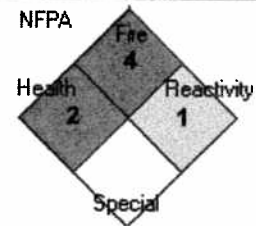
TSCA Inventory Status:
Listed on Inventory: **YES** All components of this product are listed (or exempt) on the EPA TSCA Inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 1, FLAMMABILITY 1, REACTIVITY 1
Estimated HMIS Classification: HEALTH 1, FLAMMABILITY 1, PHYSICAL HAZARD 0
NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Denise Boyd, Health and Safety Manager
Company: Permatex, Inc. 10 Columbus Blvd. Hartford, CT USA
06106
Telephone Number: 1-87-Permatex (877) 376-2839

Revision Date: 08/08/2001
Revision Number: 1

MSDS - Material Safety Data Sheet**Product Name: THRUST INSTANT STARTING FLUID****MSDS No.: M3815****I. Basic Information:****Manufacturer:** RADIATOR SPECIALTY COMPANY**Address:** 600 RADIATOR ROAD**City, ST Zip:** INDIAN TRAIL, NC 28079**Emergency Contact:** Rocky Mountain Poison Control Center**Emergency Telephone Number:** 303-623-5716**Contact:** Robert Geer**Information Telephone Number:** 704-688-3430**Last Update:** 04/25/2006**Chemical State:** Liquid Gas Solid**Chemical Type:** Pure Mixture

2	Health
4	Flammability
0	Reactivity
H	Pers. Protection

II. Ingredients: Trade Secret

CAS No.	Chemical Name	% Range	EHS		IARC		SARA		OSHA PEL	ACGIH TLV	Other Limits
			NTP		SUB Z	313					
124389	Carbon dioxide	1.0 - 10.0						N/AV	5000 ppm		
60297	Ethane, 1,1'-oxybis-	15.0 - 40.0						400 ppm	400 ppm		
142825	Heptane	40.0 - 70.0						400 ppm	400 ppm		
64742525	Naphthenic Petroleum Distillate	< 1.0						5 mg/m3	5 mg/m3		
64742536	Naphthenic Petroluem Oil	< 1.0						5 mg/m3	5 mg/m3		

III. Hazardous Identification:**Hazard Category:**
 Acute Chronic Fire Pressure Reactive
Hazardous Identification Information:

DANGER: EXTREMELY FLAMMABLE. HARMFUL OR FATAL IF SWALLOWED. VAPOR TOXIC. EXCESSIVE INHALATION MAY BE FATAL. VAPORS MAY CAUSE FLASH FIRES. EYE IRRITANT. CONTENTS UNDER PRESSURE.

Level 3 Aerosol

IV. First Aid Measures:**Route(s) of Entry:**

Inhalation, eye and skin contact.

Health Hazards (Acute and Chronic):

See signs and symptoms below.

Signs and Symptoms:

Eye Contact: Direct spray or vapors will irritate and may harm eyes

Skin Contact: Product may cause irritation due to defatting of skin.

Inhalation: High concentrations of vapors may irritate nose and throat and cause symptoms of intoxication such as dizziness, nausea, headache, or indigestion.

Ingestion: Gastrointestinal irritation, nausea, cramps, diarrhea. May be harmful or fatal if swallowed..

MSDS - Material Safety Data Sheet

Product Name: THRUST INSTANT STARTING FLUID

MSDS No.: M3815

Medical Conditions Generally Aggravated by Exposure:

None Known

Emergency and First Aid Procedures:

Eye Contact: Flush eyes with clean water for 15 minutes while lifting eyelids. Get prompt medical attention.

Skin Contact: Wash with soap and water thoroughly. If adverse effects persist, get prompt medical attention. Launder contaminated clothing before reuse.

Inhalation: Remove to fresh air. If breathing becomes difficult get prompt medical attention.

Ingestion: DO NOT INDUCE VOMITING! Call Poison Control Center, physician, or hospital emergency room immediately.

Other Health Warnings:

Vomiting and subsequent aspiration into the lungs may lead to chemical pneumonia and pulmonary edema which is a potentially fatal condition.

V. Fire Fighting Measures:

Flash Point: < 0°F

Lower Explosive Limit: N/D

Upper Explosive Limit: N/D

F.P. Method: Calculated

Fire Extinguishing Media: Foam, Dry Chemical (B-C), Carbon Dioxide

Special Fire Fighting Procedures:

Wear self-contained, positive pressure breathing apparatus and protective clothing. Use water fog to keep container cool. Protect from venting, rupturing, and bursting containers.

Unusual Fire and Explosion:

At temperatures above 120°F, containers may vent, rupture, or burst, even violently. Contents under pressure. Do not use near fire, sparks, or flame.

VI. Accidental Release Measures:

Steps to be Taken In Case Material is Released or Spilled:

Eliminate all ignition sources. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Dike or contain spill and absorb with inert materials (sand, sawdust, absorbent sweeping compounds, rags, etc). Using a non-metallic scoop, place contaminated material into an approved chemical waste container. Where possible, vacuum spilled liquid using an explosion proof vacuum to recover material. Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred.

VII. Handling and Storage:

Precautions to be Taken:

Use with adequate ventilation and proper protective equipment.

Do not use or store near fire, sparks, open flame or heat sources. Do not puncture or incinerate container. Exposure to temperatures above 120° may cause container to vent, rupture, or burst. Store in a cool, dry place, out of direct sunlight.

Other Precautions:

Do not used in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS!

VIII. Exposure Controls/Personal Protection:

Ventilation Requirements:

See Section 2 for applicable exposure limits. Maintain adequate ventilation.

Avoid breathing vapors. In restricted areas, use approved chemical/mechanical filters designed to remove a combination of particles and vapor. In confined areas, use approved air line type respirator or hood. A self-contained breathing apparatus is required for vapor concentrations above TLV limits.

MSDS - Material Safety Data Sheet**Product Name: THRUST INSTANT STARTING FLUID****MSDS No.: M3815****Personal Protective Equipment:**

See Section 2 for applicable exposure limits. For prolonged exposure wear protective safety glasses, gloves, and apron.

IX. Physical and Chemical Properties:**Boiling Point:** N/D**Melting Point:** N/A**Evaporation Rate (Butyl Acetate = 1):** N/D**Vapor Pressure (mm Hg.):** N/D**Specific Gravity (H₂O = 1):** 0.68500**Vapor Density (AIR = 1):** N/D.**Solubility In Water:** Partial solubility**Appearance and Odor:** Clear liquid with solvent/ether odor.**Other Information:** % VOC: 93%**X. Stability and Reactivity:****Stability:**

Product is stable

Incompatibility (Materials to Avoid):

Avoid contact with oxidizing agents.

Decomposition/By Products:

Carbon Dioxide, Carbon Monoxide.

Hazardous Polymerization:

Will not occur.

XI. Toxicological Information:

N/D

XII. Ecological Information:

N/D

XIII. Disposal Considerations:

DISPOSAL: This container may be recycled in aerosol recycling centers when empty. Before offering for recycling, empty the can by using the product according to the label. DO NOT PUNCTURE! If recycling is not available, wrap the container and discard in the trash. Dispose of unused product in accordance with all local, state government and federal laws and regulations.

XIV. Transport Information:**DOT Hazard Class:** ORM-D**Shipping Name:** Consumer Commodity**XV. Regulatory Information:**

See Section 2 for SARA Reportable Chemicals.

USA TSCA: All components of this material are either exempt or listed on the US TSCA Inventory.

MSDS - Material Safety Data Sheet

Product Name: THRUST INSTANT STARTING FLUID

MSDS No.: M3815

XVI. Other Information:

Do not used in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye.
KEEP AWAY FROM CHILDREN AND ANIMALS!

N/E: Not Established

N/D: Not Determined

N/A: Not Applicable

N/AV: Not Available

WEARING CONTACT LENSES WHEN HANDLING THIS MATERIAL IS INADVISABLE! KEEP AWAY FROM CHILDREN AND ANIMALS.

While Radiator Specialty Company believes this data is accurate as of the revision date, we make no warranty with respect to the data and we expressly disclaim all liability for reliance thereon. The data is offered solely for information, investigation, and verification. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this MSDS. The user is responsible for full compliance.

05089 -- Brakleen® Brake Parts Cleaner, 19 Wt Oz**Product Description**

The original brake parts cleaner. Formulated to quickly & effectively remove grease, brake dust, brake fluids, oils, & other contaminants from brake parts, lining, pads.

Product Specifications**Applications**

ABS, disc, drum, brake cylinders, brake drums, brake linings, brake shoes, callipers, clutch discs, disc brake pads, discs. Safe for use on all brake systems including: Springs & Wedge brakes

Unit Package Description

20 Ounce Aerosol

Generic Description 1

Brake Parts Cleaner

Brand

CRC

Net Fill

19 Wt Oz

UPC Code

0 78254 05089 8

Unit Dimensions-Inches

9.25H x 2.625W x 2.625D

Units Per Case

12

Case Dimensions-Inches

10.25H x 8.5W x 11.5L

Cases Per Pallet

114

Lbs. Per Case

18

I 2 of 5 Code

30078254050899

Appearance

Colorless Liquid

Odor

Irritating Odor at High Concentrations

Base Type

Chlorinated

Flashpoint - TCC Method

None

Specific Gravity

1.62

VOC %

None

VOC G/L

None

VOC Lbs./Gal.

None

KB Value

95

Flammable

No

Plastic Safe

No

Evaporation Rate

>1 (butyl acetate=1)

Propellant

Carbon Dioxide

NSF Registered

No

Ford Tax No.

027071

Aerosol Flammability Level

I

DOT Proper Shipping Name

Consumer Commodity, ORM-D

VOC Compliant for CA &

OTC = Yes / CA = No

OTC

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsens 134a Refrigerant
MSDS NO. 6312
Revision Date: 05/16/2002

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Johnsens 134a Refrigerant
Chemical Family: Refrigerant Gas
Synonyms: None
Emergency Telephone (24 hr.): CHEMTREC 1-800-424-9300
Supplier: Technical Chemical Company, P.O. Box 139, Cleburne, Texas 76033

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient/CAS No.	wt. %	OSHA PEL TWA	OSHA PEL Ceiling Limits	ACGIH TLV TWA	ACGIH TLW STEL
1,1,1,2-Tetrafluoroethane 811-97-2	100	Not Known (Recommended <1000 ppm TWA)	Not Known	Not Known	Not Known

Contains no other ingredients in concentrations >.1% that are now known to be hazardous as defined by OSHA.

3. HAZARDS IDENTIFICATION

Emergency Overview: Content under pressure. "Frostbite-like" effects may occur if the liquid or escaping vapors contact the eyes or skin. May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products. Gross inhalation overexposure may cause heart irregularities, unconsciousness or death. Vapor reduces oxygen available for breathing and is heavier than air. Workers with heart disease or compromised heart function should limit exposure to this material. Keep away from heat, sparks and flame.

4. FIRST AID MEASURES

Eye Contact: In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.
Ingestion: Not applicable - product is a gas at ambient temperatures.
Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention. Do not give adrenaline, epinephrin or similar drugs following exposure to this product.
Skin Contact: For exposure to liquid, immediately warm frostbite area with warm water (not to exceed 105°F). In case of massive exposure, remove clothing while showering with warm water. Get medical attention.

5. FIRE FIGHTING MEASURES

Flammable Properties
Flash Point °F(°C): NA - Gas
Flash Point Method: Not Applicable
Flammable Limits in Air - Lower (%): Not Applicable
Flammable Limits in Air - Upper (%): Not Applicable
Autoignition Temperature °F(°C): 743 C
Extinguishing Media: Use water spray to keep containers cool that are exposed to heat or flames. Use extinguishing media appropriate for surrounding fire.
Protection Of Fire-Fighters:
Special Fire-Fighting Procedures: Warning!! Contents under pressure. Container may rupture under fire conditions. Decomposition may occur. Wear approved positive-pressure self-contained breathing apparatus and protective clothing.
Hazardous Combustion Products: May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products. Liquid and gas under pressure, overheating or overpressurizing may cause gas release and/or violent cylinder bursting. Container may explode if heated due to resulting pressure rise. Some mixtures of HFCDs and/or HFCs, and air or oxygen may be combustible if pressurized and exposed to extreme heat or flame.
Aerosol Comments: NFPA Level 1 Aerosol

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective clothing and equipment to prevent skin and eye contact. Avoid breathing gas. When airborne exposure limits are exceeded use NIOSH approved respiratory protection equipment appropriate to the

Trade Name: Johnsens 134a Refrigerant **MSDS NO.** 6312

Spill Procedures: material and/or its components.
Wear protective equipment specified. Avoid all sources of ignition; heat, sparks and open flames. Use Halogen leak detector or other suitable means to locate leaks or check atmosphere. Keep upwind. Evacuate enclosed spaces and disperse gas with floor-level forced-air ventilation. Exhaust vapors outdoors. Do not smoke or operate internal combustion engines.
Increase area ventilation. Do not puncture or incinerate container. Contents under pressure.

Environmental Precautions: Do not allow entry to the atmosphere. Recover, reclaim or recycle when practical.

7. HANDLING AND STORAGE

Handling and Storage: CAUTION: COMPRESSED GAS. Do not puncture, incinerate or store above 120 F. Do not store in passenger compartment of automobile. Avoid breathing vapors, if exposed to high vapor concentration, leave area at once. Avoid contact with skin and eyes. Should not be mixed with air for leak testing or used for any other purpose above atmospheric pressure. Use only in a well ventilated area. Do not reuse this container. Keep away from heat and open flame. Protect from light and heat

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Showers. Eyewash stations.

Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.

Skin Protection: Avoid skin contact. Wear protective clothing and gloves.

Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits. Use in a well ventilated area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless liquified gas.	pH Value:	Not Determined
Odor:	MILD ETHER LIKE	Vapor Density (Air=1):	3.25
Vapor Pressure:	.665 MPa (6.66 bar) (25C)	Melting/Freezing Point:	-160 C (Freezing Point)
Boiling Point (°F):	-26.4 C	Bulk Density at 20°C:	1.21 @ 25 C (g/cm3)
Solubility in Water:	.9 g/l @ 25 C.	Evaporation Rate:	Not Determined
Molecular Weight:	102.03	Specific Gravity (H2O=1):	1.21 @ 4 C.
Viscosity:	Not determined.	Decomposition Temperature:	>370 C
VOC Content(%):	Not determined.		

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Do not expose to heat or store at temperatures above 120f. Keep away from heat, sparks and flame.

Materials to Avoid: Avoid contact with alkali or alkaline earth metals. Avoid finely powdered metals such as aluminum, magnesium or zinc. Strong oxidizers

Hazardous Decomposition Products: Thermal decomposition products include hydrogen fluoride, hydrogen chloride, carbon monoxide, carbon dioxide and chlorine.

Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Ingredient/CAS No.	wt. %	Route	Species	Dose
1,1,1,2-Tetrafluoroethane 811-97-2	100	Inhalation	Rats	LC50 1500 gm/m3/4H

Carcinogenicity:

Ingredient/CAS No.	wt. %	IARC	NTP	OSHA
1,1,1,2-Tetrafluoroethane 811-97-2	100	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: 48 hour EC50 - Daphnia magna: 980 mg/L, 96 hour LC50 - Rainbow trout: 450 mg/L

13. DISPOSAL CONSIDERATION

Trade Name: Johnsens 134a Refrigerant **MSDS NO.** 6312

Waste Classification: Not determined.

Waste Management: Not determined.

Disposal should be made in accordance with federal, state and local regulations. Recover, reclaim or recycle when practical.

14. TRANSPORTATION INFORMATION

U.S. DOT:

Proper Shipping Name: 1,1,1,2-tetrafluoroethane
Hazard Class: 2.2
UN/NA Number: UN3159
DOT Packing Group: NA

IMDG:

Proper Shipping Name: 1,1,1,2-tetrafluoroethane
Hazard Class: 2.2
Hazard Subclass: Not determined.
UN No.: UN3159
Packing Group: NA
Marine Pollutant: No

15. REGULATORY INFORMATION

US Federal Regulations:

Ingredient/CAS No.	wt. %	SARA 313	SARA 302	RQ	TPQ
1,1,1,2-Tetrafluoroethane 811-97-2	100	Not Listed	Not Listed	NA	NA

SARA 311/312 Hazard Categories: Accute, Chronic, Pressure

State Regulations:

Ingredient/CAS No.	wt. %	California Prop. 65 Cancer list	California Prop. 65 Developmental Toxicity	California Prop. 65 Reproductive Female	California Prop. 65 Reproductive Male
1,1,1,2-Tetrafluoroethane 811-97-2	100	Not Listed	Not Listed	Not Listed	Not Listed

U.S. TSCA:

The components of this product are listed on the TSCA Inventory.

16. OTHER INFORMATION

General Notes: Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system.

Disclaimer:

The information and recommendations contained herein are based upon tests believed to be reliable. However, Technical Chemical Company does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. Technical Chemical Company assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

700-94-42

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/19/2002

Reviewed on 11/19/2002

1 Identification of substance

Trade name: **RED**

Product code: PM07009942

Manufacturer/Supplier:
SEYMOUR OF SYCAMORE
917 Crosby Avenue
Sycamore, IL 60178
(815)-895-9101



Information department: Health & Safety Department
Emergency information: CHEMTEL 1-800-255-3924

2 Composition/Data on components

Chemical Characterization Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

67-64-1	acetone	Xi, F, R 11-36-66-67	21.89%
74-98-6	propane	F+, R 12	18.87%
64742-89-8	VM&P Naptha	Xn, R 20/22	11.72%
106-97-8	n-butane	F+, R 12	11.08%
108-88-3	toluene	Xn, F, R 11-20	10.69%
64742-47-8	Mineral Spirits	Xn, F, R 11-65	4.02%
67-63-0	isopropyl alcohol	Xi, F, R 11-36-67	2.42%
108-65-6	PM acetate	Xi, R 10-36	2.15%
7727-43-7	barium sulphate, natural	Xi, R 37	1.54%

Additional information: For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

Hazard description:



Xn Harmful
F+ Extremely flammable

Information pertaining to particular dangers for man and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

R 12 Extremely flammable.

R 20 Harmful by inhalation.

R 36 Irritating to eyes.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

86.0 % by mass of the contents are flammable

Keep out of the reach of children/flammable

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

NFPA ratings (scale 0 - 4)

Health = 1

Fire = 4

Reactivity = 3

HMIS-ratings (scale 0 - 4)

Health = 1

Fire = 4

Physical Hazard = 3

4 First aid measures

General information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult doctor.

5 Fire fighting measures

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

Protective equipment: Mount respiratory protective device.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/19/2002

Reviewed on 11/19/2002

Trade name: RED

Do not flush with water or aqueous cleansing agents

(Contd. of page 1)

7 Handling and storage

Handling:

Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about protection against explosions and fires:

Do not spray on a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

Further information about storage conditions:

Keep receptacle tightly sealed.

Do not gas tight seal receptacle.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

8 Exposure controls and personal protection

Components with limit values that require monitoring at the workplace:

67-64-1 acetone

PEL	2400 mg/m ³ , 1000 ppm
REL	590 mg/m ³ , 250 ppm
TLV	Short-term value: 1782 mg/m ³ , 750 ppm Long-term value: 1188 mg/m ³ , 500 ppm
	BEI

74-98-6 propane

PEL	1800 mg/m ³ , 1000 ppm
REL	1800 mg/m ³ , 1000 ppm
TLV	4508 mg/m ³ , 2500 ppm

106-97-8 n-butane

REL	1900 mg/m ³ , 800 ppm
TLV	1900 mg/m ³ , 800 ppm

108-88-3 toluene

PEL	Short-term value: C 300; 500* ppm Long-term value: 200 ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm
TLV	188 mg/m ³ , 50 ppm Skin; BEI

67-63-0 isopropyl alcohol

PEL	980 mg/m ³ , 400 ppm
REL	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV	Short-term value: (1230) mg/m ³ , (500) ppm Long-term value: (983) mg/m ³ , (400) ppm NIC-200; 491; 400; 984; A 4

7727-43-7 barium sulphate, natural

PEL	15*; 5** mg/m ³ *Total dust **Respirable fraction
REL	10*; 5** mg/m ³ *Total dust **Respirable fraction
TLV	10 mg/m ³ (e)

Additional information: The lists that were valid during the creation were used as basis.

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 3) USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

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Reviewed on 11/19/2002

Trade name: RED

Eye protection: Tightly sealed goggles

(Contd. of page 2)

9 Physical and chemical properties

General Information

Form:	Aerosol
Color:	According to product specification
Odor:	Characteristic
Boiling point/Boiling range:	-44°C (-47°F)
Flash point:	-19°C (-2°F)
Ignition temperature:	365.0°C (689°F)
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Lower Explosion Limit:	0.9 Vol %
Upper Explosion Limit:	13.0 Vol %
Vapor pressure at 20°C (68°F):	8300.0 hPa (6226 mm Hg)
Density:	Not determined.
Organic solvent Content:	79.8 %
Solids content:	16.2 %

10 Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Dangerous reactions No dangerous reactions known.

11 Toxicological information

Primary irritating effect on the skin: No irritant effect.
Primary irritating effect on the eye: Irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:
 The product shows the following dangers according to internally approved calculation methods for preparations:
 Harmful.
 Irritant.

13 Disposal considerations

DISPOSAL METHOD: Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Empty containers must be handled with care due to product residue. Do not heat or cut empty containers with electric or gas torches.
Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

14 Transport information:

Hazard class:	2.1
Identification number:	N/A
Proper shipping name (technical name):	Consumer Commodity
ADR/RID class:	2 Gases
Item:	5 TF
UN-Number:	1950
IMDG Class:	2
Page:	2102
Packaging group:	II
EMS Number:	2-13
MFAG:	310
Marine pollutant:	No
ICAO/IATA Class:	2.1
Proper shipping name:	Aerosols, Flammable

15 Regulations

Sara

Section 355 (extremely hazardous substances):

None of the ingredient is listed.

Section 313 (Specific toxic chemical listings):

108-88-3 toluene
 67-63-0 isopropyl alcohol
 1330-20-7 xylene (mix)

TSCA (Toxic Substances Control Act):

67-64-1 acetone
 74-98-6 propane
 64742-89-8 VM&P Naptha
 106-97-8 n-butane

(Contd. on page 4)
USA

Material Safety Data Sheet
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Reviewed on 11/19/2002

Trade name: RED

108-88-3	toluene	(Cont. of page 1)
64742-47-8	Mineral Spirits	
67-63-0	isopropyl alcohol	
108-65-6	PM acetate	
7727-43-7	barium sulphate, natural	
110-19-0	isobutyl acetate	
13463-67-7	titanium dioxide	
1330-20-7	xylene (mix)	
Proposition 65		
Chemicals known to cause cancer:		
None of the ingredients is listed.		
Chemicals known to cause reproductive toxicity:		
108-88-3	toluene	

Carcinogenity categories

EPA (Environmental Protection Agency)		
67-64-1	acetone	D
108-88-3	toluene	D
110-19-0	isobutyl acetate	D
1330-20-7	xylene (mix)	D
100-41-4	ethyl benzene	D

IARC (International Agency for Research on Cancer)

108-88-3	toluene	3
67-63-0	isopropyl alcohol	3
13463-67-7	titanium dioxide	3
1330-20-7	xylene (mix)	3
1309-37-1	red iron oxide pigment	3

NTP (National Toxicology Program)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

67-64-1	acetone	A4
108-88-3	toluene	A4
110-19-0	isobutyl acetate	A4
13463-67-7	titanium dioxide	A4
1330-20-7	xylene (mix)	A4
1309-37-1	red iron oxide pigment	A4

NIOSH-Ca (National Institute for Occupational Safety and Health)

13463-67-7 titanium dioxide

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Hazard symbols:

- Xn Harmful
- F+ Extremely flammable
- Risk phrases:**
- 12 Extremely flammable.
- 20 Harmful by inhalation.
- 36 Irritating to eyes.

Safety phrases:

- 2 Keep out of the reach of children.
- 3 Keep in a cool place.
- 23 Do not breathe gas/fumes/vapour/spray.
- 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well-ventilated areas.

Special labelling of certain preparations:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
86.0 % by mass of the contents are flammable
Keep out of the reach of children/flammable

Technical Instructions (air):

Class	Share in %
II	10.9
III	57.2
NK	11.7

Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Contact: Craig Swafford

100-44-43

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/19/2002

Reviewed on 11/19/2002

1 Identification of substance

Trade name: **WHITE**

Product code: PM07009943

Manufacturer/Supplier:
SEYMOUR OF SYCAMORE
917 Crosby Avenue
Sycamore, IL 60178
(815)-895-9101



Information department: Health & Safety Department
Emergency information: CHEMTEL 1-800-255-3924

2 Composition/Data on components

Chemical Characterization Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:			
74-98-6	propane	⊕ F+; R 12	18.93%
108-88-3	toluene	⊗ Xn, ⊕ F; R 11-20	17.85%
67-64-1	acetone	⊗ Xi, ⊕ F; R 11-36-66-67	17.5%
106-97-8	n-butane	⊕ F+; R 12	11.12%
13463-67-7	titanium dioxide	⊗ Xi; R 37	7.84%
64742-89-8	VM&P Naptha	⊗ Xn; R 20/22	7.18%
110-54-3	n-hexane	⊗ Xn, ⊕ F, ⊕ N; R 11-38-48/20-62-51/53-65-67	6.44%
64742-47-8	Mineral Spirits	⊗ Xn, ⊕ F; R 11-65	2.05%

Additional information: For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

Hazard description:



Xn Harmful
F+ Extremely flammable

Information pertaining to particular dangers for man and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

R 12 Extremely flammable.

R 20 Harmful by inhalation.

R 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R 62 Possible risk of impaired fertility.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

76.4 % by mass of the contents are flammable

Keep out of the reach of children/flammable

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

NFPA ratings (scale 0 - 4)

Health = 1

Fire = 4

Reactivity = 3

HMLS-ratings (scale 0 - 4)

Health = 1

Fire = 4

Physical Hazard = 3

4 First aid measures

General information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: If symptoms persist consult doctor.

5 Fire fighting measures

Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.

Protective equipment: Mount respiratory protective device.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

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acc. to ISO/DIS 11014

Printing date 11/19/2002

Reviewed on 11/19/2002

Trade name: WHITE

Do not flush with water or aqueous cleansing agents

(Contd. of page 1)

7 Handling and storage

Handling:

Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about protection against explosions and fires:

Do not spray on a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

Further information about storage conditions:

Keep receptacle tightly sealed.

Do not gas tight seal receptacle.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

8 Exposure controls and personal protection

Components with limit values that require monitoring at the workplace:

74-98-6 propane

PEL 1800 mg/m³, 1000 ppmREL 1800 mg/m³, 1000 ppmTLV 4508 mg/m³, 2500 ppm

108-88-3 toluene

PEL Short-term value: C 300; 500* ppm

Long-term value: 200 ppm

* 10-min peak per 8-hr shift

REL Short-term value: 560 mg/m³, 150 ppmLong-term value: 375 mg/m³, 100 ppmTLV 188 mg/m³, 50 ppm

Skin: BEI

67-64-1 acetone

PEL 2400 mg/m³, 1000 ppmREL 590 mg/m³, 250 ppmTLV Short-term value: 1782 mg/m³, 750 ppmLong-term value: 1188 mg/m³, 500 ppm

BEI

106-97-8 n-butane

REL 1900 mg/m³, 800 ppmTLV 1900 mg/m³, 800 ppm

110-54-3 n-hexane

PEL 1800 mg/m³, 500 ppmREL 180 mg/m³, 50 ppmTLV 176 mg/m³, 50 ppm

Skin: BEI

Additional information: The lists that were valid during the creation were used as basis.

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

9 Physical and chemical properties

General Information

Form:	Aerosol
Color:	According to product specification
Odor:	Characteristic
Boiling point/Boiling range:	-44°C (-47°F)
Flash point:	-19°C (-2°F)
Ignition temperature:	240.0°C (464°F)

(Contd. on page 3)
USA

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acc. to ISO/DIS 11014

Printing date 11/19/2002

Reviewed on 11/19/2002

Trade name: WHITE

(Contd. of page 2)

Auto igniting:	Product is not selfigniting.
Danger of explosion:	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Lower Explosion Limit:	1.2 Vol %
Upper Explosion Limit:	13.0 Vol %
Vapor pressure at 20°C (68°F):	8300.0 hPa (6226 mm Hg)
Density:	Not determined.
Organic solvent Content:	80.2 %
Solids content:	17.7 %

10 Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Dangerous reactions No dangerous reactions known.

11 Toxicological information

LD/LC50 values that are relevant for classification:

108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rab)
Inhalative	LC50/4 h	5320 mg/l (mus)

Primary irritating effect on the skin: No irritant effect.
Primary irritating effect on the eye: No irritating effect.
Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful.

12 Ecological information

Ecotoxical effects:
Remark: Harmful to fish

13 Disposal considerations

DISPOSAL METHOD: Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Empty containers must be handled with care due to product residue. Do not heat or cut empty containers with electric or gas torches.
Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

14 Transport information:

Hazard class:	2.1
Identification number:	N/A
Proper shipping name (technical name):	Consumer Commodity
ADR/RID class:	2 Gases
Item:	5 F
UN-Number:	1950
IMDG Class:	2
Page:	2102
Packaging group:	II
EMS Number:	2-13
MFAG:	620
Marine pollutant:	No
ICAO/IATA Class:	2.1
Proper shipping name:	Aerosols, Flammable

15 Regulations

Sara

Section 355 (extremely hazardous substances):

None of the ingredient is listed.

Section 313 (Specific toxic chemical listings):

108-88-3	toluene
110-54-3	n-hexane
1330-20-7	xylene (mix)

TSCA (Toxic Substances Control Act):

74-98-6	propane
108-88-3	toluene
67-64-1	acetone
106-97-8	n-butane
13463-67-7	titanium dioxide
64742-89-8	VM&P Naptha

(Contd. on page 4) USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/19/2002

Reviewed on 11/19/2002

Trade name: WHITE

(Contd. of page 3)

110-54-3	n-hexane
64742-47-8	Mineral Spirits
108-65-6	PM acetate
1330-20-7	xylene (mix)

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity:

108-88-3 | toluene

Carcinogenity categories

EPA (Environmental Protection Agency)

108-88-3	toluene	D
67-64-1	acetone	D
1330-20-7	xylene (mix)	D
100-41-4	ethyl benzene	D
110-19-0	isobutyl acetate	D

IARC (International Agency for Research on Cancer)

108-88-3	toluene	3
13463-67-7	titanium dioxide	3
1330-20-7	xylene (mix)	3
1333-86-4	Carbon black	2B

NTP (National Toxicology Program)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

108-88-3	toluene	A4
67-64-1	acetone	A4
13463-67-7	titanium dioxide	A4
1330-20-7	xylene (mix)	A4
1333-86-4	Carbon black	A4
110-19-0	isobutyl acetate	A4

NIOSH-Ca (National Institute for Occupational Safety and Health)

13463-67-7	titanium dioxide
1333-86-4	Carbon black

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Hazard symbols:

- Xn Harmful
- F+ Extremely flammable

Hazard-determining components of labelling:

n-hexane
toluene

Risk phrases:

- 12 Extremely flammable.
- 20 Harmful by inhalation.
- 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- 62 Possible risk of impaired fertility
- 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety phrases:

- 2 Keep out of the reach of children.
- 23 Do not breathe gas/fumes/vapour/spray.
- 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
- 36/37 Wear suitable protective clothing and gloves.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well-ventilated areas.

Special labelling of certain preparations:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
76.4 % by mass of the contents are flammable
Keep out of the reach of children/inflammable

Technical instructions (air):

Class	Share in %
II	18.1
III	54.9
NK	7.2

Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
Contact: Craig Swafford

100-77-47

Material Safety Data Sheet

acc. to ISO/DIS 11014

Page 1/4

Printing date 11/19/2002

Reviewed on 11/19/2002

1 Identification of substance

Trade name: **FLAT BLACK**

Product code: PM07009944

Manufacturer/Supplier:
SEYMOUR OF SYCAMORE
917 Crosby Avenue
Sycamore, IL 60178
(815)-895-9101



Information department: Health & Safety Department
Emergency information: CHEMTEL 1-800-255-3924

2 Composition/Data on components

Chemical Characterization Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

67-64-1	acetone	Xi, F; R 11-36-66-67	22.77%
74-98-6	propane	F+; R 12	18.9%
64742-89-8	VM&P Naptha	Xn; R 20/22	12.01%
1317-65-3	Calcium Carbonate	Xi; R 36/37/38	11.96%
106-97-8	n-butane	F+; R 12	11.1%
108-88-3	toluene	Xn, F; R 11-20	8.76%
64742-47-8	Mineral Spirits	Xn, F; R 11-65	2.96%
67-63-0	isopropyl alcohol	Xi, F; R 11-36-67	2.26%

Additional information: For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

Hazard description:



Xn Harmful
F+ Extremely flammable

Information pertaining to particular dangers for man and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

R 12 Extremely flammable.

R 20 Harmful by inhalation.

R 36 Irritating to eyes.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

79.6 % by mass of the contents are flammable

Keep out of the reach of children/flammable

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

NFPA ratings (scale 0 - 4)

Health = 1

Fire = 4

Reactivity = 3

HMS-ratings (scale 0 - 4)

Health = 1

Fire = 4

Physical Hazard = 3

4 First-aid measures

General information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult doctor.

5 Fire fighting measures

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

Protective equipment: Mount respiratory protective device.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

(Cont. on page 2)
USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/19/2002

Reviewed on 11/19/2002

Trade name: FLAT BLACK

Do not flush with water or aqueous cleansing agents

(Contd. of page 1)

7 Handling and storage

Handling:

Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about protection against explosions and fires:

Do not spray on a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

Further information about storage conditions:

Keep receptacle tightly sealed.

Do not gas tight seal receptacle.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

8 Exposure controls and personal protection

Components with limit values that require monitoring at the workplace:

67-64-1 acetone

PEL 2400 mg/m³, 1000 ppmREL 590 mg/m³, 250 ppmTLV Short-term value: 1782 mg/m³, 750 ppmLong-term value: 1188 mg/m³, 500 ppm

BEI

74-98-6 propane

PEL 1800 mg/m³, 1000 ppmREL 1800 mg/m³, 1000 ppmTLV 4508 mg/m³, 2500 ppm

1317-65-3 Calcium Carbonate

PEL 15*; 5** mg/m³

*Total dust **Respirable fraction

REL 10*; 5** mg/m³

*Total dust **Respirable fraction

TLV 10 mg/m³

(e)

106-97-8 n-butane

REL 1900 mg/m³, 800 ppmTLV 1900 mg/m³, 800 ppm

108-88-3 toluene

PEL Short-term value: C 300; 500* ppm

Long-term value: 200 ppm

*10-min peak per 8-hr shift

REL Short-term value: 560 mg/m³, 150 ppmLong-term value: 375 mg/m³, 100 ppmTLV 188 mg/m³, 50 ppm

Skin: BEI

67-63-0 isopropyl alcohol

PEL 980 mg/m³, 400 ppmREL Short-term value: 1225 mg/m³, 500 ppmLong-term value: 980 mg/m³, 400 ppmTLV Short-term value: (1230) mg/m³, (500) ppmLong-term value: (983) mg/m³, (400) ppm

NIC-200; 491; 400; 984; A 4

Additional information:

The lists that were valid during the creation were used as basis.

The International Agency for Research on Cancer has evaluated ethylbenzene and classified it as a possible human carcinogen based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. However, a two year rat and mouse gavage study by the National Toxicology Program on mixed xylene isomers including 17% ethylbenzene showed no evidence of carcinogenicity.

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 3)

USA

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Page 3/4

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Trade name: FLAT BLACK

Penetration time of glove material The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. (Contd. of page 2)
 Eye protection: Tightly sealed goggles

9 Physical and chemical properties

General Information

Form:	Aerosol
Color:	According to product specification
Odor:	Characteristic
Boiling point/Boiling range:	-44°C (-47°F)
Flash point:	-19°C (-2°F)
Ignition temperature:	365.0°C (689°F)
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Lower Explosion Limit:	0.9 Vol %
Upper Explosion Limit:	13.0 Vol %
Vapor pressure at 20°C (68°F):	8300.0 hPa (6226 mm Hg)
Density:	Not determined.
Organic solvent Content:	76.8 %
Solids content:	16.7 %

10 Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
 Dangerous reactions No dangerous reactions known.

11 Toxicological information

Primary irritating effect on the skin: No irritant effect.
 Primary irritating effect on the eye: Irritating effect.
 Sensitization: No sensitizing effects known.
 Additional toxicological information:
 The product shows the following dangers according to internally approved calculation methods for preparations:
 Harmful.
 Irritant.

13 Disposal considerations

DISPOSAL METHOD: Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Empty containers must be handled with care due to product residue. Do not heat or cut empty containers with electric or gas torches.
 Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

14 Transport information:

Hazard class:	2.1
Identification number:	N/A
Proper shipping name (technical name):	Consumer Commodity
ADR/RID class:	2 Gases
Item:	5 F
UN-Number:	1950
IMDG Class:	2
Page:	2102
Packaging group:	II
EMS Number:	2-13
MFAG:	620
Marine pollutant:	No
ICAO/IATA Class:	2.1
Proper shipping name:	Aerosols, Flammable

15 Regulations

Sara

Section 355 (extremely hazardous substances):

None of the ingredient is listed.

Section 313 (Specific toxic chemical listings):

108-88-3 | toluene

67-63-0 | isopropyl alcohol

1330-20-7 | xylene (mix)

100-41-4 | ethyl benzene

TSCA (Toxic Substances Control Act):

67-64-1 | acetone

74-98-6 | propane

(Contd. on page 4)
USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/19/2002

Reviewed on 11/19/2002

Trade name: **FLAT BLACK**

64742-89-8	VM&P Naptha	(Cont. of page 1)
1317-65-3	Calcium Carbonate	
106-97-8	n-butane	
108-88-3	toluene	
64742-47-8	Mineral Spirits	
67-63-0	isopropyl alcohol	
1333-86-4	Carbon black	
1330-20-7	xylene (mix)	
108-65-6	PM acetate	
100-41-4	ethyl benzene	

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity:

108-88-3 toluene

Carcinogenity categories

EPA (Environmental Protection Agency)

67-64-1	acetone	D
108-88-3	toluene	D
1330-20-7	xylene (mix)	D
100-41-4	ethyl benzene	D
110-19-0	isobutyl acetate	D

IARC (International Agency for Research on Cancer)

108-88-3	toluene	3
67-63-0	isopropyl alcohol	3
1333-86-4	Carbon black	2B
1330-20-7	xylene (mix)	3
112926-00-8	Silicone Dioxide Amorphous Synthetic	3

NTP (National Toxicology Program)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

67-64-1	acetone	A4
108-88-3	toluene	A4
1333-86-4	Carbon black	A4
1330-20-7	xylene (mix)	A4
110-19-0	isobutyl acetate	A4

NIOSH-Cs (National Institute for Occupational Safety and Health)

1333-86-4 Carbon black

OSHA-Cs (Occupational Safety & Health Administration)

None of the ingredients is listed.

Hazard symbols:

Xn Harmful
F+ Extremely flammable

Hazard-determining components of labelling:

toluene

Risk phrases:

12 Extremely flammable.
20 Harmful by inhalation.
36 Irritating to eyes.

Safety phrases:

2 Keep out of the reach of children.
3 Keep in a cool place.
23 Do not breathe gas/fumes/vapour/spray.
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
46 If swallowed, seek medical advice immediately and show this container or label.
51 Use only in well-ventilated areas.

Special labeling of certain preparations:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
79.6 % by mass of the contents are flammable
Keep out of the reach of children: flammable

Technical instructions (air):

Class	Share in %
II	9.4
III	55.4
NK	12.0

Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
Contact: Craig Swafford

700-99-45

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/19/2002

Reviewed on 11/19/2002

1 Identification of substance

Trade name: **NON SMUDGE ALUM**

Product code: PM07009945

Manufacturer/Supplier:
SEYMOUR OF SYCAMORE917 Crosby Avenue
Sycamore, IL 60178
(815)-895-9101Information department: Health & Safety Department
Emergency information: CHEMTEL 1-800-255-3924

2 Composition/Data on components

Chemical Characterization Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:		
108-88-3	toluene	Xn, F; R 11-20 23.46%
67-64-1	acetone	Xi, F; R 11-36-66-67 23.14%
74-98-6	propane	F+; R 12 17.63%
106-97-8	n-butane	F+; R 12 10.35%
1317-65-3	Calcium Carbonate	Xi; R 36/37/38 4.88%
7429-90-5	Aluminum flake	Xi; R 37 3.69%
64742-47-8	Mineral Spirits	Xn, F; R 11-65 1.58%
1330-20-7	xylene (mix)	Xn; R 10-20/21-38 1.37%

Additional information: For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

Hazard description:

Xn Harmful
F+ Extremely flammable

Information pertaining to particular dangers for man and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

R 12 Extremely flammable.

R 15 Contact with water liberates extremely flammable gases.

R 20 Harmful by inhalation.

R 36 Irritating to eyes.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

79.2 % by mass of the contents are flammable

Keep out of the reach of children

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

NFPA ratings (scale 0 - 4)

Health = 1

Fire = 4

Reactivity = 3

HMIS-ratings (scale 0 - 4)

Health = 1

Fire = 4

Physical Hazard = 3

4 First aid measures

General information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

In case of unconsciousness place patient stably in side position for transportation.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult doctor.

5 Fire fighting measures

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

Protective equipment: Mount respiratory protective device.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

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Reviewed on 11/19/2002

Trade name: NON SMUDGE ALUM

Do not flush with water or aqueous cleansing agents

(Contd. of page 1)

7 Handling and storage

Handling:**Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about protection against explosions and fires:

Do not spray on a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

Further information about storage conditions:

Keep receptacle tightly sealed.

Do not gas tight seal receptacle.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

8 Exposure controls and personal protection

Components with limit values that require monitoring at the workplace:**108-88-3 toluene**

PEL Short-term value: C 300; 500* ppm

Long-term value: 200 ppm

*10-min peak per 8-hr shift

REL Short-term value: 560 mg/m³, 150 ppmLong-term value: 375 mg/m³, 100 ppmTLV 188 mg/m³, 50 ppm

Skin; BEI

67-64-1 acetonePEL 2400 mg/m³, 1000 ppmREL 590 mg/m³, 250 ppmTLV Short-term value: 1782 mg/m³, 750 ppmLong-term value: 1188 mg/m³, 500 ppm

BEI

74-98-6 propanePEL 1800 mg/m³, 1000 ppmREL 1800 mg/m³, 1000 ppmTLV 4508 mg/m³, 2500 ppm**106-97-8 n-butane**REL 1900 mg/m³, 800 ppmTLV 1900 mg/m³, 800 ppm**1317-65-3 Calcium Carbonate**PEL 15*; 5** mg/m³

*Total dust **Respirable fraction

REL 10*; 5** mg/m³

*Total dust **Respirable fraction

TLV 10 mg/m³

(e)

1330-20-7 xylene (mix)PEL 435 mg/m³, 100 ppmREL Short-term value: 655 mg/m³, 150 ppmLong-term value: 435 mg/m³, 100 ppm

(o-, m-, & p-isomers)

TLV Short-term value: 651 mg/m³, 150 ppmLong-term value: 434 mg/m³, 100 ppm

BEI

Additional information:

The lists that were valid during the creation were used as basis.

The International Agency for Research on Cancer has evaluated ethylbenzene and classified it as a possible human carcinogen based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. However, a two year rat and mouse gavage study by the National Toxicology Program on mixed xylene isomers including 17% ethylbenzene showed no evidence of carcinogenicity.

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 3)
USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/19/2002

Reviewed on 11/19/2002

Trade name: NON SMUDGE ALUM

Penetration time of glove material: The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection: Tightly sealed goggles

(Contd. of page 2)

9 Physical and chemical properties

General Information

Form:	Aerosol
Color:	According to product specification
Odor:	Characteristic
Boiling point/Boiling range:	-44°C (-47°F)
Flash point:	-19°C (-2°F)
Ignition temperature:	365.0°C (689°F)
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Lower Explosion Limit:	1.2 Vol %
Upper Explosion Limit:	13.0 Vol %
Vapor pressure at 20°C (68°F):	8300.0 hPa (6226 mm Hg)
Density:	Not determined.
Organic solvent Content:	77.7 %
Solids content:	20.7 %

10 Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Dangerous reactions: Contact with water releases flammable gases.

11 Toxicological information

LD/LC50 values that are relevant for classification:

108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rab)
Inhalative	LC50/4 h	5320 mg/l (mus)

Primary irritating effect on the skin: No irritant effect.
Primary irritating effect on the eye: Irritating effect.
Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful.
Irritant.

13 Disposal considerations

DISPOSAL METHOD: Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Empty containers must be handled with care due to product residue. Do not heat or cut empty containers with electric or gas torches.
Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

14 Transport information:

Hazard class:	2.1
Identification number:	N/A
Proper shipping name (technical name):	Consumer Commodity
ADR/RID class:	2 Gases
Item:	5 F
UN-Number:	1950
IMDG Class:	2
Page:	2102
Packaging group:	II
EMS Number:	2-13
MFAG:	620
Marine pollutant:	No
ICAO/IATA Class:	2.1
Proper shipping name:	Aerosols, Flammable

15 Regulations

Sara

Section 355 (extremely hazardous substances):

None of the ingredient is listed.

Section 313 (Specific toxic chemical listings):

108-88-3	toluene
1330-20-7	xylene (mix)

(Contd. on page 4) USA

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/19/2002

Reviewed on 11/19/2002

Trade name: NON SMUDGE ALUM

100-41-4	ethyl benzene	(Cont. of page 3)
TSCA (Toxic Substances Control Act):		
108-88-3	toluene	
67-64-1	acetone	
74-98-6	propane	
106-97-8	n-butane	
1317-65-3	Calcium Carbonate	
64742-47-8	Mineral Spirits	
1330-20-7	xylene (mix)	
108-65-6	PM acetate	
64742-89-8	VM&P Naptha	
100-41-4	ethyl benzene	
110-19-0	isobutyl acetate	

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity:

108-88-3 toluene

Carcinogeny categories

EPA (Environmental Protection Agency)

108-88-3	toluene	D
67-64-1	acetone	D
1330-20-7	xylene (mix)	D
100-41-4	ethyl benzene	D
110-19-0	isobutyl acetate	D

IARC (International Agency for Research on Cancer)

108-88-3	toluene	3
1330-20-7	xylene (mix)	3
110-91-8	morpholine	3

NTP (National Toxicology Program)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

108-88-3	toluene	A4
67-64-1	acetone	A4
1330-20-7	xylene (mix)	A4
110-19-0	isobutyl acetate	A4
110-91-8	morpholine	A4

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Hazard symbols:

- Xn Harmful
- F+ Extremely flammable

Hazard-determining components of labelling:

toluene

Risk phrases:

- 12 Extremely flammable.
- 15 Contact with water liberates extremely flammable gases.
- 20 Harmful by inhalation.
- 36 Irritating to eyes.

Safety phrases:

- 2 Keep out of the reach of children.
- 23 Do not breathe gas/fumes/vapour/spray.
- 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
- 43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well-ventilated areas.

Special labeling of certain preparations:

Pressurized container, protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
79.2 % by mass of the contents are flammable
Keep out of the reach of children/flammable

Technical instructions (air):

Class	Share in %
II	25.2
III	52.1
NK	0.3

Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
Contact: Craig Swafford

USA

TECnique Spray Paints

7200/N

Section 3 Physical Data

PRODUCT WEIGHT	See TABLE	EVAPORATION RATE	Faster than Ether
SPECIFIC GRAVITY	0.73-1.15	VAPOR DENSITY	Heavier than Air
BOILING RANGE	<0-698 °F	MELTING POINT	N.A.
VOLATILE VOLUME	>75 %	SOLUBILITY IN WATER	N.A.

Section 4 Fire And Explosion Hazard Data

FLAMMABILITY CLASSIFICATION	FLASH POINT	See TABLE	LEL	0.9	UEL	12.8
RED LABEL	Extremely Flammable, Flash below 21 °F					

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section 5 Health Hazard Data

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. Follow recommendations for proper use, ventilation, and personal protective equipment to minimize exposure.

ACUTE Health Hazards

EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

EMERGENCY AND FIRST AID PROCEDURES

- If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
- If on SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.
- If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
- If SWALLOWED: Never give anything by mouth to an unconscious person. DO NOT INDUCE VOMITING. Give several glasses of water. Seek medical attention.

CHRONIC Health Hazards

Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.

Chromates in 7286 are listed by IARC and NTP. Studies have associated exposure to Chromium VI compounds with an increased risk of respiratory cancer.

Methyl Ethyl Ketone may increase the nervous system effects of other solvents. Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, cardiovascular, and reproductive systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer, however, such exposure levels are not attainable in the workplace.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Section 6 Reactivity Data

STABILITY

Stable

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Metals in Section 2
HAZARDOUS POLYMERIZATION Will Not Occur

Section 7 Spill Or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD

Waste from these products may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers. Waste from 7286 may also require extractability testing.

Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section 8 Protection Information

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

These coatings may contain materials classified as nuisance particulates (listed as Dust in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg./m³ (total dust), 3 mg./m³ (respirable fraction), OSHA PEL 15 mg./m³ (total dust), 5 mg./m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive. When sanding, wirebrushing, abrading, burning or welding the dried film from 7286 wear a particulate respirator approved by NIOSH/MSHA for protection against non-volatile materials in Section 2.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

Section 9 Precautions

DO NOT STORE CATEGORY 1A

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Contents are EXTREMELY FLAMMABLE. Keep away from heat, sparks, and open flame.

Vapors will accumulate readily and may ignite explosively.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120°F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section 10 Other Regulatory Information

CALIFORNIA PROPOSITION 65

WARNING: These products contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in these products are listed, or are exempt from listing, on the TSCA Inventory.

The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to these products may substantially alter the composition and hazards of the products. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

covers MSDS pages 7200/N1, 7200/N2, 7200/N3 & 7200/N4

815 941 9403 P. 16

Truck Center Inc.

AUG-07-2006 12:49

Product Name: FAST ORANGE PUMICE LOTION 1GA PMPBO
Item No: 25218

Recommended Extinguishing Media: Carbon dioxide, chemical powder
Special Fire-Fighting Procedures: No special procedures.
Hazardous Products Formed by Fire or Thermal Decomposition: None anticipated
Unusual Fire/Explosion Hazards: None
Lower Explosive Limit: Not determined.
Upper Explosive Limit: Not determined.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Rinse away with water or wipe up with a towel.

7. HANDLING AND STORAGE

Storage: Hand cleaner should be stored at temperatures between 40 degrees F. and 100 degrees F.
Handling: Follow all general safety precautions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Not normally required, but wearing safety glasses will minimize exposure.
Skin: Not necessary
Ventilation: General ventilation is usually adequate.
Respiratory Protection: Not normally necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White lotion with pumice
Odor: Orange odor.
Boiling Point (°F): Not determined.
pH: 7.0
Solubility in Water: SOLUBLE
Specific Gravity: 1.03
VOC Content(Wt.%): 7.5 % by weight
Vapor Pressure: Not Determined
Vapor Density (Air=1): Not Determined
Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: WILL NOT OCCUR
Incompatibilities: None known
Conditions to Avoid: High temperatures.
Hazardous Products Formed by Fire or Thermal Decomposition: None anticipated

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Dispose of uncontaminated material through sewer system with permission of the authority responsible for that system.
US EPA Waste Number: NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49CFR 172)

Domestic Ground Transport

DOT Shipping Name: Unrestricted

Product Name: FAST ORANGE PUMICE LOTION 1GA PMPBO
Item No: 25218

Hazard Class: NONE
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Unrestricted
Class or Division: None
UN/NA Number: None

IMDG

Proper Shipping: Unrestricted
Hazard Class: None
UN Number: None

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
NONE

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present at or above the No Significant Risk Level.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 1, FLAMMABILITY 2, REACTIVITY 0
Estimated HMIS Classification: HEALTH 1, FLAMMABILITY 2, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Denise Boyd Health and Safety Manager
Company: Permatex. Inc. 10 Columbus Blvd. Hartford, CT 06106
Telephone Number: 1-87-Permatex (877) 376-2839
Revision Date: 08/16/2001

Revision Number: 0

MATERIAL SAFETY DATA SHEET

HAZARD RATING:
 4 = EXTREME
 3 = HIGH
 2 = MODERATE
 1 = SLIGHT
 0 = INSIGNIFICANT
 * = CHRONIC HEALTH HAZARD - SEE SECTION V

Fire: 0
 Health: 2
 Reactivity: 0
 Special: 0

SECTION I

BOND CHEMICALS, INC.		EMERGENCY TELEPHONE NO. 8:00 - 5:00 WEEKDAYS	
1154 W. Smith Road, Medina, Oh 44256		330/723-6005	800/424-9300
CHEMICAL NAME AND SYNONYMS NA		TRADE NAME AND SYNONYMS Bond CIS 4-556	
CHEMICAL FAMILY NA	FORMULA Mixture		

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS REG. NO.	%	TLV (Units)
Caustic Soda	1310-72-3	4	2mg/M ³
Non-Hazardous		96	
Contains no Section 302, Extremely Hazardous Substances and is not subject to reporting under 40CFR 372 (SARA Title III- Sec. 313)			
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES			
All intentional components of this product are on the Inventory of Chemical Substances of US EPA under the authority of the Toxic Substances Control Act (TSCA).			

SECTION III - PHYSICAL DATA H₂O = 1

BOILING POINT = 228 °F, 109 °C	SPECIFIC GRAVITY (H ₂ O = 1)	1.242
VAPOR PRESSURE (mm Hg) = 60 °F, 16 °C	PERCENT VOLATILE BY VOLUME (%) EXCLUDING WATER	0-
VAPOR DENSITY (AIR = 1) = NA	EVAPORATION RATE (ETHYLENE = 1)	Greater > 1
SOLUBILITY IN WATER	Complete	13.8
APPEARANCE AND ODOR	Clear, viscous liquid with no odor.	11.4

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) °F, °C	NA	FLAMMABLE LIMITS	Low	High
EXTINGUISHING MEDIA	NA		NA	NA
SPECIAL FIRE FIGHTING PROCEDURES	NA			
UNUSUAL FIRE AND EXPLOSION HAZARDS	NA			

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	2mg/M ³ atomized in air.
EFFECTS OF OVEREXPOSURE	Causes irritation to skin, burns in eyes.
EMERGENCY AND FIRST AID PROCEDURES	
EYES	Flush with water 15 min. get prompt medical attention.
SKIN	Flush with water 15 minutes, apply vinegar or boric acid.
INHALATION	Remove to fresh air.
INGESTION	Drink water or milk. See physician.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID
	STABLE	X
INCOMPATIBILITY (Materials to Avoid)	Strong acids.	
HAZARDOUS DECOMPOSITION PRODUCTS	Phosphines upon pyrolysis.	
HAZARDOUS POLYMERIZATION	MAY OCCUR	CONDITIONS TO AVOID
	WILL NOT OCCUR	X

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Do not walk in slippery area. Dike and absorb on clay, rags, sawdust, etc.
WASTE DISPOSAL METHOD (SEE TSD)	and dispose in landfill.
	Flush to sanitary sewer with large volume of water.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify Type)	None
VENTILATION	General
PROTECTIVE GLOVES	Rubber
OTHER PROTECTIVE EQUIPMENT	Apron
EYE PROTECTION	Chemical goggles

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Keep from freezing. Keep container closed. Spills are slippery.
SHIPPING NAME	Liquid Water Treatment
HAZARD CLASS	Non-hazardous

SECTION X - DATE AND SOURCE INFORMATION

DATE	01/05
------	-------

MATERIAL SAFETY DATA SHEET

79042
01 00

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

79042

HMIS CODES

Health	2*
Flammability	4
Reactivity	0

PRODUCT NAME

RUF-NEK* Spray Paint, Yellow (NAPA)

MANUFACTURER'S NAME

MARTIN SENOUR PAINTS

4440 Warrensville Center Road

Warrensville Hts., OH 44128-2837

DATE OF PREPARATION

26-MAR-03

EMERGENCY TELEPHONE NO.

(216) 566-2917

INFORMATION TELEPHONE NO.

(216) 566-2902

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS	VAPOR PRESSUR
15	74-98-6	Propane		
		ACGIH TLV	2500 ppm	760 m
		OSHA PEL	1000 ppm	
14	106-97-8	Butane		
		ACGIH TLV	800 ppm	760 m
		OSHA PEL	800 ppm	
19	108-88-3	Toluene		
		ACGIH TLV	50 ppm (skin)	22 m
		OSHA PEL	100 ppm (skin)	
		OSHA PEL	150 ppm (skin) STEL	
0.1	100-41-4	Ethylbenzene		
		ACGIH TLV	100 ppm	7.1 m
		ACGIH TLV	125 ppm STEL	
		OSHA PEL	100 ppm	
		OSHA PEL	125 ppm STEL	
30	67-64-1	Acetone		
		ACGIH TLV	500 ppm	180 m
		ACGIH TLV	750 ppm STEL	
		OSHA PEL	1000 ppm	
4	763-69-9	Ethyl 3-Ethoxypropionate		
		ACGIH TLV	Not Available	1.11 m
		OSHA PEL	Not Available	
2	13463-67-7	Titanium Dioxide		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	10 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	

Section 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

Continued on page 2

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EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

Section 4 -- FIRST AID MEASURES

- If **INHALED**: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
- If on **SKIN**: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.
- If in **EYES**: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
- If **SWALLOWED**: Do not induce vomiting. Get medical attention immediately.
-

Section 5 -- FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL
Propellant < 0 F	1.0	12.8

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

- Remove all sources of ignition. Ventilate the area.
- Remove with inert absorbent.

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Section 7 -- HANDLING AND STORAGE

STORAGE CATEGORY

NFPA 30B Level 2 Aerosol

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist. Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m³ (total dust), 3 mg/m³ (respirable fraction), OSHA PEL 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

None required for normal application of aerosol products where minimal skin contact is expected. For long or repeated contact, wear chemical resistant gloves.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Continued on page 4

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page 4

=====
Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES
=====

PRODUCT WEIGHT	6.22 lb/gal	745 g/l
SPECIFIC GRAVITY	0.75	
BOILING POINT	<0 - 342 F	<-18 - 172 C
MELTING POINT	Not Available	
VOLATILE VOLUME	90 %	
EVAPORATION RATE	Faster than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
pH	7.0	
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical)		
Volatile Weight	53.70 %	Less Federally Exempt Solvents

=====
Section 10 -- STABILITY AND REACTIVITY
=====

STABILITY -- Stable
CONDITIONS TO AVOID
 None known.

INCOMPATIBILITY
 None known.

HAZARDOUS DECOMPOSITION PRODUCTS
 By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION
 Will not occur

=====
Section 11 -- TOXICOLOGICAL INFORMATION
=====

CHRONIC HEALTH HAZARDS

Ethylbenzene is classified by IARC as possibly carcinogenic to humans (2B) based on inadequate evidence in humans and sufficient evidence in laboratory animals. Lifetime inhalation exposure of rats and mice to high ethylbenzene concentrations resulted in increases in certain types of cancer, including kidney tumors in rats and lung and liver tumors in mice. These effects were not observed in animals exposed to lower concentrations. There is no evidence that ethylbenzene causes cancer in humans.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, cardiovascular and reproductive systems.

Rats exposed to titanium dioxide dust at 250 mg./m³ developed lung cancer, however, such exposure levels are not attainable in the workplace.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

=====
TOXICOLOGY DATA
=====

Continued on page 5

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CAS No.	Ingredient Name				
74-98-6	Propane	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
106-97-8	Butane	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
108-88-3	Toluene	LC50	RAT	4HR	4000 ppm
		LD50	RAT		5000 mg/kg
100-41-4	Ethylbenzene	LC50	RAT	4HR	Not Available
		LD50	RAT		3500 mg/kg
67-64-1	Acetone	LC50	RAT	4HR	Not Available
		LD50	RAT		5800 mg/kg
763-69-9	Ethyl 3-Ethoxypropionate	LC50	RAT	4HR	Not Available
		LD50	RAT		5000 mg/kg
13463-67-7	Titanium Dioxide	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available

Section 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

Section 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section 14 -- TRANSPORT INFORMATION

No data available.

Section 15 -- REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
108-88-3	Toluene	19	
100-41-4	Ethylbenzene	0.1	

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CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

Section 16 -- OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

ENVIRONMENTAL DATA SHEET
(Certified Product Data Sheet)

1 00 [1282]

MARTIN SENOUR PAINTS
4440 Warrensville Center Road
Warrensville Hts., OH 44128-2837
26-MAR-03

This document includes all data required by 40 CFR 63.801(a) for a Certified Product Data Sheet under criteria specified in 40 CFR 63.805(a). All data given below are **MAXIMUM THEORETICAL VALUES** based on the product **AS CURRENTLY FORMULATED**. Variations may occur on individual batches due to adjustments made during production.

PRODUCT NUMBER
79042

* - Trade Mark

PRODUCT NAME
RUF-NEK* Spray Paint, Yellow (NAPA)

PRODUCT WEIGHT
6.22 lb/gal

SPECIFIC GRAVITY
0.75

FLASH POINT
-20 F PMCC

HAZARD CATEGORY (for SARA 311/312)
Acute Chronic Fire

	SARA 302 EHS	CERC.	SARA 313 TC	HAPS 112	Pct by Wt	Pct by Vol
VOLATILE INGREDIENTS						
Propane 74-98-6	N	N	N	N	15	22
Butane 106-97-8	N	N	N	N	14	19
Toluene 108-88-3	N	Y	Y	Y	19	17
Ethylbenzene 100-41-4	N	Y	Y	Y	0.1	<1
Acetone 67-64-1	N	Y	N	N	30	28
Ethyl 3-Ethoxypropionate 763-69-9	N	N	N	N	4	3

79042

page 2

VLATILE ORGANIC COMPOUNDS (follows U.S. EPA VOC Data Sheet)

A. Coating Density		6.22 lb/gal	745 g/l
B. Total Volatiles		83.7 % by wt.	90.1 % by vol
C. Federally exempt solvents:			
Water		0.0 % by wt.	0.0 % by vol
Acetone		30.0 % by wt.	28.3 % by vol
D. Organic Volatiles		53.7 % by wt.	61.8 % by vol
E. Percent Non-Volatile		16.3 % by wt.	9.9 % by vol
F. VOC Content	3.33 lb/gal	400 g/l	total
	1. 4.65 lb/gal	558 g/l	less exempt solvents
	2. 33.82 lb/gal	4053 g/l	solids
	3.29 lb/lb	3.29 kg/kg	solids
VOC Content (Percent By Wt)		53.7 % by wt.	

HAZARDOUS AIR POLLUTANTS (Clean Air Act, Section 112(b))

Volatile HAPS Pounds per Gallon	1.20 lbs/gal
Volatile HAPS Pounds per Gallon of Solids	12.23 lbs/gal
Volatile HAPS Pounds per Pound of Solids	1.19 lbs/lb

AIR QUALITY DATA

Density of Organic Solvent Blend	5.77 lbs/gal
Photochemically Reactive	NO

Maximum Incremental Reactivity (MIR) 1.40
(per California Air Resources Board
Method 310 proposed amendments for
aerosol products)

WASTE DISPOSAL

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Addition of reducers or other additives to this product may substantially alter the above data. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

MATERIAL SAFETY DATA SHEET

99N-2116

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER	OF5	HMIS CODES	
		Health	2
		Flammability	4
		Reactivity	0
PRODUCT NAME	OMNI-FILL* Aerosol Can		
MANUFACTURER'S NAME	MARTIN SENOUR PAINTS		
	4440 Warrensville Center Road		
	Warrensville Hts., OH 44128-2837		
DATE OF PREPARATION	23-APR-03	EMERGENCY TELEPHONE NO.	(216) 566-2917
		INFORMATION TELEPHONE NO.	(216) 566-2902

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

by WT	CAS No.	INGREDIENT	UNITS	VAPOR PRESSURE
25	74-98-6	Propane		760 mm
		ACGIH TLV	2500 ppm	
		OSHA PEL	1000 ppm	
65	67-64-1	Acetone		180 mm
		ACGIH TLV	500 ppm	
		ACGIH TLV	750 ppm STEL	
		OSHA PEL	1000 ppm	
9	78-93-3	Methyl Ethyl Ketone		70 mm
		ACGIH TLV	200 ppm	
		ACGIH TLV	300 ppm STEL	
		OSHA PEL	200 ppm	
		OSHA PEL	300 ppm STEL	
1	763-69-9	Ethyl 3-Ethoxypropionate		1.11 mm
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	

Section 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE
 Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

EFFECTS OF OVEREXPOSURE
 Irritation of eyes, skin and upper respiratory system.
 May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE
 Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
 Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
 None generally recognized.

OF5

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

Section 4 -- FIRST AID MEASURES

- If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
- If on SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.
- If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
- If SWALLOWED: Do not induce vomiting. Get medical attention immediately.

Section 5 -- FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL
Propellant < 0 F	1.0	12.8

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.

Remove with inert absorbent.

Section 7 -- HANDLING AND STORAGE

STORAGE CATEGORY

NFPA 30B Level 3 Aerosol

OF5

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take externally. Keep out of the reach of children.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

PROTECTIVE GLOVES

None required for normal application of aerosol products where minimal skin contact is expected. For long or repeated contact, wear chemical resistant gloves.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	5.80 lb/gal	694 g/l
SPECIFIC GRAVITY	0.70	
BOILING POINT	<0 - 342 F	<-18 - 172 C
MELTING POINT	Not Available	
VOLATILE VOLUME	100 %	
EVAPORATION RATE	Faster than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical)	Less Water and Federally Exempt Solvents	
Volatile Weight 35.47 %		

OF5

Section 10 -- STABILITY AND REACTIVITY

STABILITY -- Stable

CONDITIONS TO AVOID

None known.

COMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

Section 11 -- TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen. Methyl Ethyl Ketone may increase the nervous system effects of other

solvents.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to reproductive systems.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

TOXICOLOGY DATA

CAS No.	Ingredient Name				
74-98-6	Propane	LC50	RAT	4HR	Not Available
		LD50	RAT		Not Available
67-64-1	Acetone	LC50	RAT	4HR	Not Available
		LD50	RAT		5800 mg/kg
78-93-3	Methyl Ethyl Ketone	LC50	RAT	4HR	Not Available
		LD50	RAT		2740 mg/kg
763-69-9	Ethyl 3-Ethoxypropionate	LC50	RAT	4HR	Not Available
		LD50	RAT		5000 mg/kg

Section 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

Section 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

OP5

Section 14 -- TRANSPORT INFORMATION

No data available.

Section 15 -- REGULATORY INFORMATION

ARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
78-93-3	Methyl Ethyl Ketone	9	

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

Section 16 -- OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the CFR and the MSDS contains all of the information required by the PR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

00

Section 1
Product Identification



Automotive Finishes

Material Safety Data Sheet

The Martin Senour Co.
101 Prospect Ave. N.W.
Cleveland, OH 44115

Emergency telephone number
Information telephone number
Date of preparation

(216) 566-2917
(216) 566-2902
March 3, 2000

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TECnique Spray Paints - 2

7200/N2

CAS No.	Section 2 Hazardous Ingredients (percent by weight)	ACGIH TLV <STEL>	OSHA PEL <STEL>	Units	Vapor Pressure (mm Hg)	7233 Painter's Guide Coat	7249 Bumper Black	7241 Bumper Gray	7242 Underhood Black	7243 Chassis Black	7244 Trim Black	7245 Argent Alum Silver	7250 Iron / Black Cast	7252 Brite Aluminum
74-98-6	Propane	2500	1000	PPM	760.0	14	15	15	14	13	10	14	15	11
108-97-8	Butane	800	800	PPM	760.0	13	7	7	13	12	10	13		10
64742-68-8	V. M. & P. Naphtha	300	300 <400>	PPM	12.0								2	2
64742-88-7	Mineral Spirits	100	100	PPM	2.0					12				1
108-98-3	§ Toluene	50	100 <150>	PPM (Skin)	22.0	10	32	30			6			
100-41-4	§ Ethylbenzene	100 <125>	100 <125>	PPM	7.1				4			3		
1330-20-7	§ Xylene	100 <150>	100 <150>	PPM	5.9	5			23			18		5
67-58-1	§ Methanol	200 <250>	200 <250>	PPM (Skin)	82.0					2				
67-63-0	2-Propanol	400 <500>	400 <500>	PPM	33.0	1							2	2
71-36-3	§ 1-Butanol	C 50	50	PPM (Skin)	5.5								1	
123-42-2	Diacetone Alcohol	50	50	PPM	1.2		1	2						
67-84-1	Acetone	500 <750>	1000	PPM	180.0	34	31	31	26		38	36	49	40
78-93-3	§ Methyl Ethyl Ketone	200 <300>	200 <300>	PPM	70.0		3	3			16		4	4
108-10-1	§ Methyl Isobutyl Ketone	50 <75>	50 <75>	PPM	16.0						5			2
108-21-4	Isopropyl Acetate	250 <310>	250 <310>	PPM	47.5								6	5
783-69-9	Ethyl 3-Hydroxypropionate	Not Established			1.1						10		7	3
123-88-4	n-Butyl Acetate	150 <200>	150 <200>	PPM	10.0								1	3
110-19-0	Isobutyl Acetate	150	160	PPM	12.5	5								
8052-42-4	Asphalt (Petroleum)	Not Established								15				
7631-86-9	Amorphous Silica	10	8	Mg/M3 as Dust				2						
1332-58-7	Kaolin	2	5	Mg/M3 as Resp. Dust						11				
14807-98-6	Talc	2	2	Mg/M3 as Resp. Dust		9			8					
471-34-1	Calcium Carbonate	10	15 [5]	Mg/M3 as Dust (Respir)		1			1	14				
1333-86-4	Carbon Black	3.5	3.5	Mg/M3		0.3	0.6	0.3	0.5		0.8		0.3	
	Weight per Gallon (lbs.)					6.47	6.33	6.30	6.52	7.49	6.30	6.33	6.47	6.30
	VOC (Volatile Organic Compounds) Percent By Weight					50.2	58.1	57.0	54.4	39.3	57.1	48.2	41.4	49.9
	VOC Less Water & Federally Exempt Solvents - lbs./gal.					4.87	5.23	5.10	4.77	3.62	5.48	4.59	5.18	5.09
	Flash Point (°F)					<0	<0	<0	<0	<0	<0	<0	<0	<0

P E R C E N T
B Y
W E I G H T

§ Ingredient subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313, 40 CFR 372.85 C

MS - 7245

Supplier:
Permatex, Inc.
10 Columbus Blvd.
Hartford, CT 06106
Telephone: 1-87-Permatex
(877) 376-2839

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: 116DA SILICONE SPRAY LUBRICANT 10.25OZ AE
Item No: 80070
Product Type: Aerosol lubricant

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Percent	ACGIH 8 Hr. TWA:	OSHA 8 Hr. TWA:
Water 7732-18-5	50-70		
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT 64742-47-8	10-20		100 ppm TWA
PETROLEUM GASES, LIQUEFIED, SWEETENED 68476-86-8	10-20	1000 ppm TWA	
POLYDIMETHYLSILOXANE 63148-62-9	1-10		

3. HAZARDS IDENTIFICATION

Toxicity: May cause eye, skin and respiratory irritation. May cause nervous system depression. Excessive inhalation causes headache, dizziness, nausea, and incoordination. Intentional misuse by concentrating and inhaling the vapor may be harmful or fatal. Aspiration hazard if swallowed. Eye and skin contact, ingestion, inhalation.

Primary Routes of Entry: Eye and skin contact, ingestion, inhalation.

Signs and Symptoms of Exposure: Excessive overexposure may cause giddiness, dizziness, headache, nausea and in extreme cases, unconsciousness and respiratory depression. Overexposure may cause eye and skin redness.

Medical Conditions Recognized as Being Aggravated by Exposure: None known

4. FIRST AID MEASURES

Ingestion: If swallowed, do NOT induce vomiting. Give victim two glasses of water, Call a physician immediately. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.

Skin Contact: Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

5. FIRE FIGHTING MEASURES

Flash Point (°F/C): <-20 degrees F Based on propellant

Recommended Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam.

Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus. Keep containers cool. Use equipment or shielding required to protect against bursting or venting of containers. Water spray may be ineffective on flames but should be used to keep fire-exposed containers cool.

Hazardous Products Formed by Fire or Thermal Decomposition: Carbon Monoxide and Carbon Dioxide.

Unusual Fire/Explosion Hazards: Contents under pressure. Exposure to temperatures over 120 degrees F. may cause bursting or venting. Keep containers cool.

Lower Explosive Limit: Not determined

Upper Explosive Limit: Not determined

Product Name: 116DA SILICONE SPRAY LUBRICANT 10.25OZ AE
Item No: 80070

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal.

7. HANDLING AND STORAGE

Storage: Store away from heat, sparks or open flame. Do not store at temperatures above 120 degrees F. Exposure to high temperatures may cause container to burst.

Handling: Avoid contact with skin and eyes. Do not inhale vapors. Do not puncture or incinerate container. Do not use near heat, sparks or open flame. Intentionally concentrating and inhaling the vapor may be harmful or fatal. Use in a well ventilated area to prevent irritation by vapors. Wash hands before eating and smoking.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses or goggles.

Skin: Not normally required when using an aerosol. Wear chemical resistant gloves if repeated skin contact occurs or causes irritation.

Ventilation: Use local exhaust to control to recommended P.E.L.

Respiratory Protection: An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White liquid

Odor: MINIMAL

Boiling Point (°F): Approximately 212 degrees F.

pH: Not determined

Solubility in Water: Forms an insoluble emulsion.

Specific Gravity: 0.88-0.92

VOC Content(Wt.%): 20% by weight; 1.44 lb/gal; 173.08 g/l

Vapor Pressure: 35-45 psig

Vapor Density (Air=1): Heavier than air

Evaporation Rate: <1 (butyl acetate = 1)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions

Hazardous Polymerization: WILL NOT OCCUR

Incompatibilities: Strong oxidizers.

Conditions to Avoid: Do not expose to heat or store at temperatures above 120 F.

Hazardous Products Formed by Fire or Thermal Decomposition: Carbon Monoxide and Carbon Dioxide.

11. TOXICOLOGICAL INFORMATION

See Section 3

12. ECOLOGICAL INFORMATION

No data available

13. DISPOSAL CONSIDERATIONS

Recommended Method of Disposal: Disposal should be made in accordance with federal, state and local regulations. This container may be recycled in aerosol recycling centers. Before offering for recycling, empty the can by using the product according to the label. If recycling is not available, wrap the container and discard in the trash.

US EPA Waste Number: D001 as per 40CFR 261.21

14. TRANSPORT INFORMATION

DOT (49CFR 172)
Domestic Ground Transport

Product Name: 116DA SILICONE SPRAY LUBRICANT 10.25OZ AE
Item No: 80070

DOT Shipping Name: CONSUMER COMMODITY
Hazard Class: ORM-D
UN/ID Number: None
Marine Pollutant: None

IATA

Proper Shipping Name: Consumer Commodity
Class or Division: Class 9
UN/NA Number: ID 8000

IMDG

Proper Shipping: Aerosols, Limited Quantity
Hazard Class: Class 2.1
UN Number: UN 1950

15. REGULATORY INFORMATION

SARA 313 Chemicals: The following component(s) is listed as a SARA Section 313 Toxic Chemical.
NONE

CALIFORNIA PROP 65:

No California Prop 65 chemicals are known to be present.

TSCA Inventory Status:

All components of this product are listed (or exempt) on the EPA TSCA inventory.

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 1, FLAMMABILITY 4, REACTIVITY 0
Estimated HMIS Classification: HEALTH 1, FLAMMABILITY 4, PHYSICAL HAZARD 0

NFPA is a registered trademark of the National Fire Protection Assn.
HMIS is a registered trademark of the National Paint and Coatings Assn.

Prepared By: Denise Boyd Health and Safety Manager
Company: Permatex, Inc. 10 Columbus Blvd. Hartford, CT 06106
Telephone Number: 1-87-Permatex (877) 376-2839
Revision Date: 05/02/2001
Revision Number: 1

KOSTGard Extended Life Global Hybrid Coolant 50/50 - MSDS

Section I – Chemical Product and Company Information

Product Name: KOSTGard Extended Life Global Hybrid50/50

Product Code: 9042

Preparation Date: 2/8/05

KOST USA, Inc.

Revision Date:

Address: 2775 West US 22 & 3
Maineville, OH 45039

Telephone: 513-583-7070

Emergency Telephone Number: 1-800-424-9300 (Chemtrec)

Section II – Ingredients/Identity Information

Hazardous Components	CAS Number	%	PEL (OSHA)	TLV (ACGIH)
Ethylene Glycol	107-21-1	46.0 – 48.0	100 mg/m ³	125 mg/m ³
Diethylene Glycol*	111-46-6	0 – 3.0	N/D	N/D
Proprietary Additives	Mixture	<3.0	N/D	1 mg/m ³ TWA
DI Water	7732-18-15	48 – 50	None	None

* - Diethylene glycol Workplace Exposure Level Environmental (WEEL) is 50 ppm total and 10 mg/m³ aerosol only as set by the American Industrial Hygiene Association (AIHA)

Canadian WHMIS Classification: Class D, Division 2, Subdivision B

EMERGENCY OVERVIEW: Product is very HARMFUL or FATAL if swallowed

Section III Physical/Chemical Characteristics

Boiling Point: 163°C (325°F)

Specific Gravity: 1.07 @ 60°F

Vapor Pressure @ 20°C: 18 mm mercury

Vapor Density: (Air =1) 1.8 (Typical)

Solubility in Water: Soluble

Appearance and Odor: Fluorescent yellow liquid, mild odor

Freezing Point: -37°C (-34°F)

pH: 8.0 – 9.5

Section IV Fire & Explosion Data

Flash Point: None
Method Used: PMCC

Flammable Limits in air % by volume: Not Determined

Auto-Ignition Temp: Not Determined

Extinguisher Media: Carbon dioxide, dry chemical, or alcohol resistant foam

Special Firefighting Procedures: Use carbon dioxide, dry chemical alcohol resistant foam.
Do not use a direct stream of water.

Unusual Fire and Explosion Hazards: Remove all individuals from area who are not properly trained in fire fighting. Material is not a flammable or combustible liquid. Material will not burn unless preheated. When in confined spaces, only enter fire space with full bunker gear (including self contained breathing apparatus) when fighting a fire involving this product. Cool surrounding equipment, fire-exposed containers and structures with water. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons water per minute flame impingement exposure) to prevent weakening of container structure. Keep away from extreme heat and open flame.

National Fire Protection Association (NFPA): Health 2 Flammability 0 Reactivity 0
Other n/a

Section V Physical Hazards (Reactivity Data)

Stability: Stable X Unstable

Conditions to Avoid: Contact with heat, sparks, flame and all sources of ignition.

Incompatibility: Strong oxidizing agents.

Hazardous Decomposition Products: Oxides of carbon. Ketones and Aldehydes may form at elevated temperatures.

Hazardous Polymerization: May occur Will not occur X

Section VI Health Hazards

Signs and Symptoms of Exposure

Eyes: Will cause eye irritation. Symptoms may include pain, tearing, reddening, swelling and impaired vision.

Skin Absorption: No acute effects known.

Skin Contact: May cause slight skin irritation.

Inhalation: Mist or vapors may irritate nose, throat and lungs.

Ingestion: This material is toxic when ingested. May be very harmful or fatal if swallowed. Ingestion may result in vomiting; aspiration (breathing) of vomit into lungs must be avoided as even small quantities may result in aspiration pneumonitis. Contains ethylene glycol and diethylene glycol which are toxic when swallowed. A lethal dose for an adult is 1 ml per kilogram or about 4 ounces (1/2 cup). Severe kidney damage can occur as a result of ingestion. May cause Central Nervous System (CNS) depression.

Chronic Effects: Contains material that may be harmful to the developing fetus based on animal data.

Emergency and First Aid Procedures

Eyes: Flush with large amounts of cold water for at least 15 minutes. Do not let victim rub eyes. If irritation develops, contact a physician immediately.

Skin: Wash affected area with soap and water. Do not reuse clothing soaked with this product until laundered. Discard all leather articles which have been soaked with this product. If irritation develops, contact a physician immediately.

Inhalation: If inhaled, move to fresh air. If victim has stopped breathing give artificial respiration, preferably, mouth to mouth. Contact a physician immediately.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below the hips to prevent aspiration of material into the lungs. Contact a physician immediately.

Oral LD 50: N/D

Note to Physician: Ethylene glycol (EG) and diethylene glycol (DEG) intoxication may initially produce behavioral changes, drowsiness, vomiting, diarrhea, thirst and convulsions. EG and DEG are nephrotoxic. End stages of poisoning may include renal damage or failure with acidosis. Supportive measures, supplemented with hemodialysis if indicated, may limit the progression and severity of toxic effects. For ethylene glycol poisoning, intravenous ethanol is a recognized antidotal treatment; other antidotal treatments also exist for ethylene glycol poisoning.

Aspiration pneumonitis may be evidenced by coughing, labored

breathing, and cyanosis (bluish skin); in severe cases death may occur. Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness and nausea. In extreme cases, unconsciousness and death may occur. Kidney damage may be indicated by changes in urine output or appearance, pain upon urination or in the lower back or general edema (swelling from fluid retention). Liver damage may be indicated by loss of appetite, jaundice (yellowish skin and eye color), fatigue and sometimes pain and swelling in the upper right abdomen.

Section VII Special Precautions/ Spill & Leak Procedures

Handling: Avoid getting this material in contact with your skin and eyes. Avoid the generation of oil mists. Wash hands after handling and before eating. Avoid container damage while handling. Keep out of the reach of children and animals.

Storage: Store in closed containers in a cool, dry well ventilated area. Maintain closure of bungs. Keep this product away from open flames, sources of heat and ignition sources. Use explosion-proof ventilation to prevent vapor accumulation. Ground all handling equipment to prevent sparking. Keep face clear of tank or tank car openings. Store at temperatures below 60°C (140°F). Do not reuse container. Avoid container damage while storing.

Spill & Leak Response: Eliminate all sources of ignition in vicinity of spilled material. Do not allow spilled material to enter sewers or streams. Add dry material (such as diatomaceous earth, dry clay or sand) to absorb (if large spill, dike to contain). Using recommended protective equipment, pick up bulk of spill and containerize for recovery or disposal. Flush area with water to remove residues.

Waste Disposal: All recovered material should be packaged, labeled, transported and disposed or reclaimed in conformance with Good Engineering Practices. Comply with all applicable governmental regulations. Avoid land filling of liquids. Reclaim where possible.

Reporting: U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity to the U.S. Coast Guard's National Response Center at 1-800-424-8802.

Section VIII Special Protection Information

Respiratory Protection: If mists are generated, observe the TLV exposure limit of 100 mg/m³. If workplace exposure limit is exceeded, use NIOSH approved respirator (either a disposable dust/mist mask breathing apparatus or supplied-air respirator depending upon conditions)

for entry into confined space in the absence of proper environmental control.

Protective Gloves: Wear neoprene rubber gloves.

Eye Protection: Chemical goggles or a full face shield. Do not wear contact lenses.

Other Protective Wear: Wear impervious, protective clothing including rubber safety shoes to avoid prolonged or repeated skin contact.

Work Practices: Read label for instructions in use of product.

Section IX Other Hazard Information

This product contains ethylene glycol (EG). The toxicity of EG via inhalation or skin contact is expected to be slight at room temperature. The estimated oral lethal dose is about 100 cc (3.3 oz) for an adult human. Ethylene glycol is oxidized to oxalic acid which results in the deposition of calcium oxalate crystals mainly in the brain and kidneys. Early signs and symptoms of EG poisoning may resemble those of alcohol intoxication. Later, the victim may experience nausea, vomiting, weakness, abdominal and muscle pain, difficulty breathing and decreased urine output. When EG was heated above the boiling point of water, vapors are formed which reportedly caused unconsciousness, increased lymphocyte count and a rapid, jerky movement of the eyes in persons chronically exposed. When EG was administered orally to pregnant rats and mice, there was an increase in fetal deaths and birth defects. Some of these effects occurred at doses that had no toxic effects on the mothers. We are not aware of any reports that EG causes reproductive toxicity in human beings.

This product contains diethylene glycol (DEG). The estimated oral lethal dose is about 50 cc (1.6 oz) for an adult human. DEG has caused the following effects in laboratory animals: liver abnormalities, kidney damage and blood abnormalities. It has been suggested as a cause of the following effects in humans: liver abnormalities, kidney damage, lung damage and central nervous system damage.

Acute Toxicity:

Dermal LD 50 > 2 g/kg (Rabbit)

OSHA: Non-toxic based on components

Developmental Toxicity:

Oral exposure of pregnant rats and mice to ethylene glycol has produced birth defects in the offspring.

Kidney

Ingestion of ethylene glycol can cause bladder stones and kidney damage which can be fatal.

Liver

Prolonged and repeated ingestion of ethylene glycol has produced liver damage in rats.

Carcinogenicity:

NTP: No

IARC: No

ACGIH: No

Section X Transport Information

US Department of Transportation Classification

This material is not subject to DOT regulations under 49 CFR Parts 171-180. This material is not regulated under 49 CFR if in a shipment of 10,100 pounds in capacity or less. If shipped in a shipment of over 10,100 pounds in capacity, then the DOT information must be accompanied with RQ notation.

International Air Transport Association

Hazard Class/Division: 9 (Miscellaneous)

Identification Number: UN3082

Packing Group: III

Proper Shipping Name: Environmentally Hazardous Substance, Liquid N.O.S.

Technical Name(s): Ethylene Glycol

International Maritime Organization Classification

Hazard Class/Division: 9 (Miscellaneous)

Identification Number: UN3082

Packing Group: III

Proper Shipping Name: Environmentally Hazardous Substance, Liquid N.O.S.

Technical Name(s): Ethylene Glycol

Section XI Additional Regulatory Information

OSHA (Occupational Safety, and Health Administration)

29 CFR 1910.1200 Hazardous Chemical: yes

SARA (Superfund Amendment and Reauthorization Act)

Section 311: Hazardous Chemical - yes

Immediate - yes
Delayed - yes
Fire - no
Sudden Release - no
Reactive - no

Section 313: Toxic Chemical – yes
Ethylene glycol: CAS # 107-21-1: 70 – 100%

CERCLA Reportable Quantities (RQ) SARA 302 Threshold Planning Quantities (TPQ)

Ethylene Glycol: Component RQ: 5,000 lbs
Component TPQ: None
Product RQ: 10,100 lbs

TSCA (Toxic Substance Control Act)
All of the ingredients in this product are listed on the TSCA Inventory.

California Proposition 65
This product contains no listed substances known to the State of California to cause cancer, birth defects, or other reproductive harm, at levels which would require a warning under the statute.

Product components are listed on the Canadian DSL inventory.

Disclaimer: Information presented herein has been compiled from information provided to us by our suppliers and other sources considered to be dependable and is accurate and reliable to the best of our knowledge. Nothing herein is to be construed as recommending any practice or the use of any product in violation of any patent or in violation of any law or regulation. It is the users' responsibility to determine the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results to be obtained in using any material and since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.



SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION.

D-A Lubricant

1340 W. 29th St.
Indianapolis, IN 46208
317/923-5321

CHEMICAL EMERGENCY HOTLINE 800 899-9004

PRODUCT NAME: **EXCELON EBS**

PRODUCT DESCRIPTION: EXCELON EBS (formerly Titan EBS)

CHEMICAL FAMILY: PETROLEUM OIL, MOTOR OIL

EFFECTIVE DATE: 02/18/03

SUPERCEDES DATE: 02/07/02

Dear Customer:

In compliance with the Superfund Amendments and Reauthorization Act (SARA Title III, Section 313), Federal Hazard Communications Regulations (WHMIS and OSHA 29 CFR 1910.1200) and in the interest of informed use of our product, we are providing you with this Material Safety Data Sheet (MSDS).

This MSDS will be updated regularly to reflect the most recent information in our possession. Please ensure that obsolete MSDS sheets in your files for this part number are discarded.

We THANK YOU for your continued patronage and look forward to providing you with additional quality products and services.

SECTION 2 - HAZARDOUS INGREDIENTS

COMPONENT	CAS #	% WT	PEL	TLV	STEL	UNITS	LC50, PPM	LD50, MG/KG
PETROLEUM OILS								
	64742-65-0	60-99	5	5	10	MG/M3	RATI 13000	RABA 2000
	64741-88-4	60-99	5	5	10	MG/M3	RATI 13000	RABA 2000
ZINC DIORGANO-DITHIOPHOSPHATE								
	68649-42-3	>1.5					RATI >5000	RABA >2000 SARA Rep.

SECTION 3 - PHYSICAL DATA

Boiling Pt Deg F/C: >500/>260	Specific Gravity: 0.86 to 0.90
Vapor Pressure (MM HG): NIL	% Volatile Volume: NIL
Vapor Density (Air=1): N/A	Evaporation Rate: <0.1
Solubility in Water: NEGLIGIBLE	Water/Oil Dist Coeff: 0
Appearance and Odor: Brown fluid with Mild Petroleum Odor	PH: N/A
Physical State: LIQUID	Threshold Odor, PPM: N/A
Freeze Pt Deg F/C: N/A	VOC: Lbs/Gal = N/A
Other: N/A	Grams VOC/Grams Solid = N/A
Grams/Liter = N/A	
% VOC: N/A	

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Classification: Combustible at high temp	NFPA Rating: 1.1.0
Combustion products: CO, CO ₂ , Smoke, Sulfur, Nitrogen, Phosphorous, Boron, Molybdenum, Calcium, and Zinc Compounds.	
Flash Point Deg F/C: >370/>188	LEL %: N/A % UEL %: N/A %
Extinguishing Media: Water Fog, Foam, Dry Chemical, CO ₂ , Sand, or Earth.	
UN/PIN#: N/A	

Special Fire Fighting Procedures

Firefighters should wear self-contained breathing equipment. Treat as a Class B fire. Use water to cool threatened containers.

Auto Ign. Temp Deg F/C: >500/>260

PRODUCT NAME: **EXCELON EBS**
 EFFECTIVE DATE: 02/18/03 SUPERCEDES DATE: 02/07/02

Unusual fire and explosion hazards: N/A
 Explosion Power: N/A Impact Sensitive: No
 Burning Rate: Low Static Sensitive: No

SECTION 5 - HEALTH HAZARD DATA

Product guide: TLV see Section 2 STEL: see Section 2
 Routes of Entry: Skin contact, Eye, Inhalation, Ingestion
 Effects of Overexposure:
 Acute; may cause respiratory system, skin, and/or eye irritation.
 Ingestion may cause nausea, cramps, diarrhea, and other gastrointestinal disorders.
 Chronic; excess mist may cause respiratory problems.
 Excess skin contact may cause dryness and/or sensitization.
 Any suspected carcinogen = or > 0.1%?: NO
 Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
 Emergency and First Aid Procedures
 Eye: Immediately flush with water for 15 minutes and call a physician.
 Inhalation: If affected, remove to fresh air, administer oxygen and call a physician.
 Skin: Wash thoroughly with plenty of water and soap.
 Ingestion: Seek a physician immediately; show MSDS or Label; DO NOT induce vomiting.
 Wash soiled clothing before wearing again.

SECTION 6 - REACTIVITY DATA

Stable: YES Conditions to Avoid: N/A
 Incompatibility (Materials to avoid): YES, strong oxidizing agents
 Hazardous Decomposition Products: YES, combustion products, see Section 4
 Hazardous Polymerization: NO Conditions to Avoid: N/A

SECTION 7 - SPILL OR LEAK PROCEDURES

Listed in SARA Title III, #302: NO #304, Cercla: NO #313: YES
 Steps to be taken in case material is released or spilled:
 Eliminate source if safe to do so. Prevent from entering waterways and drains. Wear suitable personal protective equipment. Dike and absorb with inert material and transfer to a sealed approved container for disposal. Any spill of this material that can enter navigable waters must be reported immediately to the National Response Center (800-424-8802)
 Report Quantity, Lb: N/A Kg: N/A TPQ, Lb: N/A
 Regulations: SARA Other: N/A
 Hazard Waste: NO
 NO.:
 Disposal Method: In accordance with Federal, State, and Local Regulations.
 *** SARA Waste Characteristic: N/A
 *** EPA Hazardous Waste Number: N/A

SECTION 8 - SAFE HANDLING AND PROTECTION INFORMATION

Respiratory Protection: Use only in well ventilated areas.
 Ventilation - Local: Recommended Special: Avoid Heat/Flame
 Mechanical: Required Other: N/A
 Protective Gloves: Oil/Solvent resistant Eye Protection: Safety Glasses/Goggles
 Other Protective Equipment:
 Oil/Solvent resistant clothing and footwear. If ventilation is inadequate, wear approved respiratory equipment.
 Estimated LD50, Mg/Kg: YES Dermal, Rabbit 2000, Oral Rat 13000
 Estimated LC50, PPM: NO

PRODUCT NAME: **EXCELON EBS**
EFFECTIVE DATE: 02/18/03 SUPERCEDES DATE: 02/07/02

Sensitization: NO

Irritant: NO

Synergistic Agents: NO

SECTION 9 - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing:

Use only in well ventilated areas. Avoid prolonged or repeated breathing of fumes, vapor, or mist. Avoid contact with eyes and skin. DO NOT take internally. Wash thoroughly after using. In case of accident or illness, consult a physician immediately; show label and/or MSDS.

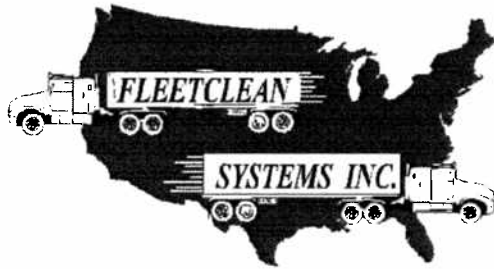
Keep out of reach of children.

Always read and follow directions on product label.

Other precautions:

More technical information (MSDS) available upon request. For professional industrial use only. Good personal hygiene is important. Empty containers retain residue which can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other ignition sources; they may explode and cause injury or death.

The information and recommendations provided herein are believed to be accurate as of the date hereof. However, such information and recommendations are provided without warranty of any kind and D-A Lubricant disclaims any and all liability or legal responsibility for use or reliance upon same.



Hwy 834 E. 7/10th miles
 P.O. Box 727
 Hardin, TX 77561
 936-298-9835
 936-298-2769 (Fax)

MATERIAL SAFETY DATA SHEET

MSDS NUMBER: 1D04101
MSDS DATE: 08/07/06
PRODUCT NAME: #1D READY TO USE

EMERGENCY PHONE NUMBER - INFOTRAC - 24 HOUR #800-535-5053

I. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME AND ADDRESS	FLEETCLEAN SYSTEMS INC P.O. BOX 727 HWY 834 E. 7/10TH MILES HARDIN, TX 77561	TELEPHONE (936) 298-9835
--	--	--

CHEMICAL CLASS: INORGANIC ACID CLEANING COMPOUND **CAS NUMBER:** NONE FOR MIXTURE

DOT PROPER SHIPPING NAME: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (CONTAINS CITRIC ACID, AND PHOSPHORIC ACID)

DOT HAZARD CLASS: CORROSIVE 8 - REPORTABLE QUANTITY IN SPILLS EXCEEDING 999 GALLONS.

DOT I.D. NUMBER: UN3264

HAZARDOUS INGREDIENTS: CITRIC ACID, PHOSPHORIC ACID

II. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	HAZARD DATA	CAS NUMBER	%
CITRIC ACID	PEL: 3 PPM TLV: 3 PPM	7664-39-3	0.05
PHOSPHORIC ACID			2-5%

CAS = CHEMICAL ABSTRACT SERVICE NUMBER
 PEL = OSHA PERMISSIBLE EXPOSURE LIMIT
 TLV = ACGIH THRESHOLD LIMIT VALUE, CURRENT

NC = NO RELEVANT INFORMATION OR NOT AVAILABLE
 NA = NOT APPLICABLE
 CEL = CORPORATE EXPOSURE LIMIT

IMPORTANT; THE INFORMATION PRESENTED HEREIN IS BELIEVED TO BE RELIABLE. HOWEVER NO WARRANTY, EXPRESSED OR IMPLIED IS MADE AS TO ITS ACCURACY OR COMPLETENESS, AND NONE IS MADE AS TO THE FIRNESS OF THE MATERIAL FOR ANY PURPOSE. THE MANUFACTURE SHALL NOT BE LIABLE FOR DAMAGES TO PERSON OR PROPERTY RESULTING FROM ITS USE. NOTHING HEREIN SHALL BE CONSTRUED AS A RECOMMENDATION FOR USE IN VIOLATION OF ANY PATENT.

MSDS NUMBER: 1D04101
MSDS DATE: 08/07/06
PRODUCT NAME: #1D READY TO USE

PAGE 2 OF 4

III. HEALTH HAZARD INFORMATION

EMERGENCY AND FIRST AID PROCEDURES

SKIN: FLUSH GENTLY WITH COOL WATER AND UNDER NAILS FOR A MINIMUM FOR 15 MINUTES. IMMERSE IN SOLUTION OF 0.13% ICE AQUEOUS ZEPHIRAN CHLORIDE. IF IMMERSION IS NOT PRACTICAL, APPLY COMPRESSES SOAKED IN ZEPHIRAN CHLORIDE. CALL PHYSICIAN IMMEDIATELY.

EYES: IRRIGATE EYES FOR AT LEAST 15 MINUTES WITH LARGE QUANTITIES OF COOL WATER, KEEPING EYELIDS APART AND AWAY FROM EYEBALLS DURING IRRIGATION. GET IMMEDIATE MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. DRINK LARGE AMOUNTS OF WATER. GET IMMEDIATE MEDICAL ATTENTION.

INHALATION: MOVE PERSON TO FRESH AIR. KEEP HIM LYING DOWN, QUIET AND WARM. GET IMMEDIATE MEDICAL ATTENTION.

ROUTES OF EXPOSURE

INHALATION: AIRBORNE CONCENTRATION OF MIST OR SPRAY CAN IRRITATE THROAT AND RESPIRATORY SYSTEM.

SKIN: LIQUID AND VAPOR CAN CAUSE SEVERE BURNS WHICH MAY NOT BE IMMEDIATELY PAINFUL OR VISIBLE.

EYES: BOTH LIQUID AND VAPOR CAN CAUSE IRRITATION AND CORNEA BURNS.

INGESTION: CAN CAUSE SEVERE MOUTH, THROAT AND STOMACH BURNS.

EFFECTS OF OVEREXPOSURE

THE MATERIALS IN THIS PRODUCT ARE NOT LISTED IN THE TSCA INVENTORY AS CARCINOGENIC BY IARC, NTP, OSHA, ACGIH.

MSDS NUMBER: 1D04101
MSDS DATE: 08/07/06
PRODUCT NAME: #1D READY TO USE

PAGE 3 OF 4

AND EXPLOSION DATA

FLASH POINT: NON FLAMMABLE **AUTOIGNITION TEMPERATURE:** NA

FLAMMABLE LIMITS IN AIR, % BY VOLUME **UPPER:** NA
LOWER: NA

EXTINGUISHING MEDIA: USE WATER OR SUITABLE AGENT TO FIRES ADJACENT
NON-LEAKING CONTAINERS. DO NOT USE SOLID WATER STREAMS NEAR
RUPTURES CONTAINERS OR SPILLS OR HYDROFLUORIC ACID.

SPECIAL FIRE FIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS
APPROVED BY THE NIOSH AND FULL PROTECTIVE CLOTHING. USE WATER
SPRAY TO KEEP CONTAINERS COOL.

UNUSUAL FIRE AND EXPLOSION HAZARD: REACTION WITH METALS GENERATES
FLAMMABLE AND POTENTIALLY EXPLOSIVE HYDROGEN GAS. HEAT INCREASES
PRESSURE AND MAY EXPLODE CONTAINERS.

V. SPECIAL PROTECTION

VENTILATION: LOCAL EXHAUST SUFFICIENT TO REDUCE VAPOR AND ACID MIST
BELOW PERMISSIBLE TLV LEVELS.

VI. PHYSICAL DATA

BOILING POINT: 66 C **SPECIFIC GRAVITY:** 1.02 TO 1.04

VAPOR PRESSURE: APPROXIMATELY 110 MM HG @ 20 C

SOLUBILITY IN WATER: COMPLETE **PH:** 2

APPEARANCE AND ODOR: HOT PINK LIQUID WITH ACIDIC AROMA

VII. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY: UNDER NORMAL CONDITIONS PRODUCT IS STABLE.

INCOMPATIBILITY: STORAGE IN ALUMINUM, ZINC, AND MOST METALS WHICH YIELD
HYDROGEN GAS, A FIRE AND EXPLOSIVE HAZARD.

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: MATERIAL IS NOT KNOWN TO POLYMERIZE

MSDS NUMBER: 1D04101
MSDS DATE: 08/07/06
PRODUCT NAME: #1D READY TO USE

PAGE 4 OF 4

VIII. HANDLING AND STORAGE

DO NOT GET IN EYES, ON SKIN AND ON CLOTHING. DO NOT TAKE INTERNALLY. USE WITH ADEQUATE VENTILATION. WHEN EXPOSED TO CONCENTRATED VAPORS IN A CONFINED AREA, USE OF RESPIRATORY PROTECTION MAY BE NECESSARY. WHEN HANDLING, WEAR CHEMICAL SPLASH GOGGLES AND RUBBER GLOVES. WASH THOROUGHLY AFTER HANDLING, AS EXPOSURE CAN CAUSE BURNS WHICH ARE NOT IMMEDIATELY PAINFUL OR VISIBLE. KEEP CONTAINERS TIGHTLY CLOSED. STORE IN COOL DRY LOCATION AWAY FROM INCOMPATIBLE MATERIALS. DO NOT ADD WATER TO ACID; INSTEAD, DILUTE BY ADDING ACID TO WATER CAUTIOUSLY AND WITH AGITATION.

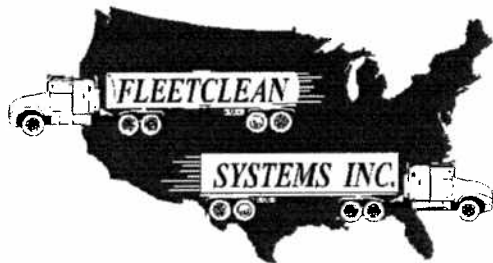
IX ENVIRONMENTAL PROCEDURES

DO NOT GET IN EYES, ON SKIN AND ON CLOTHING. DO NOT TAKE INTERNALLY. USE WITH ADEQUATE VENTILATION. WHEN EXPOSED TO CONCENTRATED VAPORS IN A CONFINED AREA, USE OF RESPIRATORY PROTECTION MAY BE NECESSARY. WHEN HANDLING, WEAR CHEMICAL SPLASH GOGGLES AND RUBBER GLOVES. WASH THOROUGHLY AFTER HANDLING, AS EXPOSURE CAN CAUSE BURNS WHICH ARE NOT IMMEDIATELY PAINFUL OR VISIBLE. KEEP CONTAINERS TIGHTLY CLOSED. STORE IN COOL DRY LOCATION AWAY FROM INCOMPATIBLE MATERIALS. DO NOT ADD WATER TO ACID; INSTEAD, DILUTE BY ADDING ACID TO WATER CAUTIOUSLY AND WITH AGITATION.

STEPS TO BE TAKEN IF MATERIAL LEAKS OR IS SPILLED:

NEUTRALIZE WITH LIME SLURRY OR SODA ASH. PROVIDE PLENTY OF VENTILATION.
DISPOSE OF RESIDUE IN ACCORDANCE WITH APPLICABLE LOCAL DISPOSAL REGULATIONS.
KEEP PRODUCT OUT OF STORM SEWER OR SANITARY SEWER.

WASTE DISPOSAL METHOD: TREAT TO DISPOSE OF ACCORDING TO REGULATIONS UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT AS ADMINISTERED BY THE USEPA OR APPROPRIATE STATE AGENCY.



Hwy 834 E. 7/10th miles
 P.O. Box 80
 Hardin, TX 77561
 936-298-9835
 936-298-2769 (Fax)

MATERIAL SAFETY DATA SHEET

MSDS NUMBER: 2004102
MSDS DATE: 08/07/06
PRODUCT NAME: #2 READY TO USE

EMERGENCY PHONE NUMBER - INFOTRAC - 24 HOUR #800-535-5053

I. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME AND ADDRESS	FLEETCLEAN SYSTEMS INC P.O. BOX 727 HWY 834 E. 7/10TH MILES HARDIN, TX 77561	TELEPHONE (936) 298-9835
--	--	--

CHEMICAL CLASS:	ALKALINE DETERGENT CLEANER	CAS NUMBER:	NONE FOR MIXTURE
DOT PROPER SHIPPING NAME:	COMPOUND, CLEANING LIQUID, N.O.S.		
DOT HAZARD CLASS:	N/A		
DOT I.D. NUMBER:	N/A		
HAZARDOUS INGREDIENTS:	N/A		

II. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	HAZARD DATA	CAS NUMBER	%
NONE			

CAS = CHEMICAL ABSTRACT SERVICE NUMBER	NC = NO RELEVANT INFORMATION OR NOT AVAILABLE
PEL = OSHA PERMISSIBLE EXPOSURE LIMIT	NA = NOT APPLICABLE
TLV = ACGIH THRESHOLD LIMIT VALUE, CURRENT	CEL = CORPORATE EXPOSURE LIMIT

IMPORTANT: THE INFORMATION PRESENTED HEREIN IS BELIEVED TO BE RELIABLE. HOWEVER NO WARRANTY, EXPRESSED OR IMPLIED IS MADE AS TO ITS ACCURACY OR COMPLETENESS, AND NONE IS MADE AS TO THE FIRNESS OF THE MATERIAL FOR ANY PURPOSE. THE MANUFACTURE SHALL NOT BE LIABLE FOR DAMAGES TO PERSON OR PROPERTY RESULTING FROM ITS USE. NOTHING HEREIN SHALL BE CONSTRUED AS A RECOMMENDATION FOR USE IN VIOLATION OF ANY PATENT.

MSDS NUMBER: 2003102
MSDS DATE: 08/07/06
PRODUCT NAME: #2 READY TO USE

PAGE 2 OF 4

III. HEALTH HAZARD INFORMATION

EMERGENCY AND FIRST AID PROCEDURES

EYES: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR 15 MINUTES, HOLDING EYELIDS APART TO ENSURE FLUSHING OF THE ENTIRE EYE SURFACE. GET IMMEDIATE MEDICAL ATTENTION.

SKIN: IMMEDIATELY WASH WITH PLENTY OF WATER FOR 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND FOOTWEAR. GET IMMEDIATE MEDICAL ATTENTION.

INHALATION: REMOVE PERSON OUT OF CONTAMINATED AREA TO FRESH AIR. GET IMMEDIATE MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER. IF AVAILABLE, GIVE SEVERAL GLASSES OF MILK. GET IMMEDIATE MEDICAL ATTENTION.

ROUTES OF EXPOSURE

EYES: BOTH LIQUID AND VAPOR MAY CAUSE MILD IRRITATIONS IN SOME PERSONS.

SKIN: LIQUID CAN CAUSE MILD IRRITATIONS IN SOME PERSONS DUE TO ALLERGIC REACTION.

INHALATION: AIRBORNE CONCENTRATION OF MIST, VAPOR OR SPRAY CAN IRRITATE THROAT AND RESPIRATORY SYSTEM.

INGESTION: CAN CAUSE MILD MOUTH, THROAT AND STOMACH IRRITATIONS.

EFFECTS OF OVEREXPOSURE

THE MATERIALS IN THIS PRODUCT ARE NOT LISTED IN THE TSCA INVENTORY AS CARCINOGENIC BY IARC, NTP, OSHA, ACGIH.

MSDS NUMBER: 2003102
MSDS DATE: 08/07/06
PRODUCT NAME: #2 READY TO USE

PAGE 3 OF 4

AND EXPLOSION DATA

FLASH POINT: NON FLAMMABLE **AUTOIGNITION TEMPERATURE:** NA

FLAMMABLE LIMITS IN AIR, % BY VOLUME **UPPER:** NA
LOWER: NA

EXTINGUISHING MEDIA: THIS PRODUCT IS NOT COMBUSTIBLE.

SPECIAL FIRE FIGHTING PROCEDURES: PROTECTIVE CLOTHING AND PRESSURE DEMAND, SELF-CONTAINED BREATHING APPARATUS SHOULD BE WORN BY FIREFIGHTERS IN AREAS WHERE PRODUCT IS STORED.

UNUSUAL FIRE AND EXPLOSION HAZARD: NONE

V. SPECIAL PROTECTION

VENTILATION: LOCAL EXHAUST SUFFICIENT TO REDUCE VAPOR AND ACID MIST BELOW PERMISSIBLE TLV LEVELS.

VI. PHYSICAL DATA

BOILING POINT: ND **SPECIFIC GRAVITY:** 1.02 TO 1.04

VAPOR PRESSURE: ND

SOLUBILITY IN WATER: COMPLETE **PH:** 12.8

APPEARANCE AND ODOR: REDDISH LIQUID WITH A PLEASANT FRUITY ODOR.

VII. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY: UNDER NORMAL CONDITIONS PRODUCT IS STABLE.

INCOMPATIBILITY: AVOID STORAGE IN ALUMINUM, TIN, ZINC, AND ALLOYS CONTAINING THESE METALS.

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: MATERIAL IS NOT KNOWN TO POLYMERIZE

MSDS NUMBER: 2003102
MSDS DATE: 08/07/06
PRODUCT NAME: #2 READY TO USE

PAGE 4 OF 4

VIII. HANDLING AND STORAGE

DO NOT GET IN EYES, ON SKIN AND ON CLOTHING. DO NOT TAKE INTERNALLY. USE WITH ADEQUATE VENTILATION. WHEN EXPOSED TO CONCENTRATED VAPORS IN A CONFINED AREA, USE OF RESPIRATORY PROTECTION MAY BE NECESSARY. WHEN HANDLING, WEAR CHEMICAL SPLASH GOGGLES AND RUBBER GLOVES. WASH THOROUGHLY AFTER HANDLING, AS EXPOSURE CAN CAUSE BURNS WHICH ARE NOT IMMEDIATELY PAINFUL OR VISIBLE. KEEP CONTAINERS TIGHTLY CLOSED. STORE IN COOL DRY LOCATION AWAY FROM INCOMPATIBLE MATERIALS.

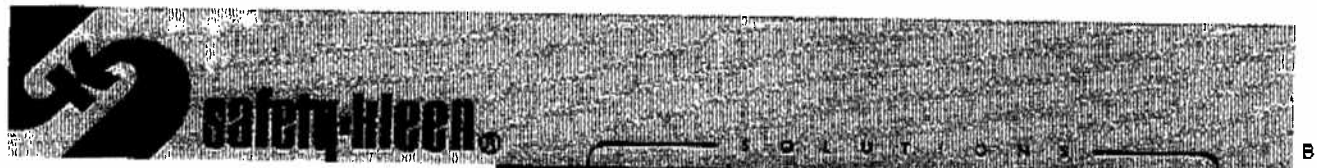
IX ENVIRONMENTAL PROCEDURES

DO NOT GET IN EYES, ON SKIN AND ON CLOTHING. DO NOT TAKE INTERNALLY. USE WITH ADEQUATE VENTILATION. WHEN EXPOSED TO CONCENTRATED VAPORS IN A CONFINED AREA, USE OF RESPIRATORY PROTECTION MAY BE NECESSARY. WHEN HANDLING, WEAR CHEMICAL SPLASH GOGGLES AND RUBBER GLOVES. WASH THOROUGHLY AFTER HANDLING, AS EXPOSURE CAN CAUSE BURNS WHICH ARE NOT IMMEDIATELY PAINFUL OR VISIBLE. KEEP CONTAINERS TIGHTLY CLOSED. STORE IN COOL DRY LOCATION AWAY FROM INCOMPATIBLE MATERIALS.

STEPS TO BE TAKEN IF MATERIAL LEAKS OR IS SPILLED:

LEAKS SHOULD BE STOPPED. SPILLS SHOULD BE CONTAINED AND CLEANED UP IMMEDIATELY. NEUTRALIZE WITH ANY DILUTED INORGANIC ACID. THE SPILL AREA SHOULD THEN BE FLUSHED WITH WATER FOLLOWED BY LIBERAL COVERING OF SODIUM BICARBONATE. PERSONS PERFORMING CLEAN-UP WORK SHOULD WEAR ADEQUATE PROTECTIVE CLOTHING AND EQUIPMENT.

WASTE DISPOSAL METHOD: TREAT TO DISPOSE OF ACCORDING TO REGULATIONS UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT AS ADMINISTERED BY THE USEPA OR APPROPRIATE STATE AGENCY.



- CLEANING PRODUCTS
- ENVIRONMENTAL SERVICES
- INDUSTRY SPECIFIC
- OIL SERVICES

Parts Washer

Solvent
-Choose-

Aqueous
-Choose-

Paint Gun Cleaning
-Choose-

Chemistries

Related Products

- Premium Gold Solvent (55 Gallon)
- Premium Gold Solvent (5 Gallon)
- Model 16 Sink Parts Washer



Sink Parts Washer (M

A sink-on-a-drum parts washer with fusible link cover, flexible metal spi customer's parts are manually was The solvent drains into the drum be recirculated.

Specifications

APPLICATIONS

Industrial and Automotive facilitie
Less than 50 parts per hour
Small to medium parts
Light to moderate soil
Cleanliness for general mainten

CHEMISTRY

- 105 Solvent Recycled
- 105 Solvent Virgin
- 140 Solvent
- Premium Gold Solvent

now 15 Joliet

Price: \$ 450.00 Quantity: 1

ADD TO CART

Other Ownership Options

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web site

*Which one?
ask your Driver*

**SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SAFETY-KLEEN 105 SOLVENT RECYCLED

SYNONYMS: Parts Washer Solvent; Petroleum Distillates; Petroleum Naphtha; Naphtha, Solvent; Stoddard Solvent; Mineral Spirits.

PRODUCT CODE: 6614, 6617, 1011662, 1014662

PRODUCT USE: Cleaning and degreasing metal parts.
If this product is used in combination with other products, refer to the Material Safety Data Sheet for those products.
FOR COMMERCIAL USE ONLY.

24-HOUR EMERGENCY PHONE NUMBERS

These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.

MEDICAL:	TRANSPORTATION (SPILL):
1-800-468-1760	1-800-468-1760

SUPPLIER: Safety-Kleen Systems, Inc.
5400 Legacy Drive
Cluster II, Building 3
Plano, Texas 75024
USA
1-800-669-5740
www.Safety-Kleen.com

TECHNICAL INFORMATION: 1-800-669-5740 Press 1 then 1 then Enter 7500

MSDS FORM NUMBER: 82310

ISSUE: October 21, 2005

ORIGINAL ISSUE: April 8, 1976

SUPERSEDES: August 11, 2005

PREPARED BY: Product MSDS Coordinator

APPROVED BY: MSDS Task Force

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

WT%	NAME	SYNONYM	CAS NO.	OSHA PEL**		ACGIH TLV®		LD ^a	LC ^b
				TWA	STEL	TWA	STEL		
99-100	Distillates (petroleum), hydrotreated light	N. Av.	64742-47-8	500 ^c ppm 2900 ^c mg/m ³	N. Av.	100 ^c	N. Av.	5000 ^c mg/kg	5500 ^c mg/m ³ /4h
0-0.2*	Tetrachloroethylene	Perchloroethylene; Tetrachloroethene	127-18-4	100 ppm	200 (ceiling)	25	100	2629	34.2 g/m ³ /8h

**OSHA Final PEL value (enforceable). Some States have adopted more stringent values.

N. Av. = Not Available

* Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

^aOral-Rat LD₅₀

^bInhalation-Rat LC₅₀

^cBased on Stoddard Solvent

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE

Liquid, clear and green, mild hydrocarbon odor.

WARNING!

PHYSICAL HAZARDS

Combustible liquid and vapor.

HEALTH HAZARDS

May be harmful if inhaled.

May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.

May be harmful if swallowed.

Contains material that may cause central nervous system and kidney damage.

Contains material which may cause birth defects.

Suspect cancer hazard. Contains material (less than 0.2% by weight) which may cause cancer. Risk of cancer depends on duration and level of exposure.

ENVIRONMENTAL HAZARDS

Toxic to fish.

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

POTENTIAL HEALTH EFFECTS

INHALATION (BREATHING): High concentrations of vapor may be harmful if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.

EYES: May cause irritation.

SKIN: May cause irritation. Not likely to be absorbed in harmful amounts.

INGESTION (SWALLOWING): May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing respiratory tract (nose, throat, and lungs), central nervous system, kidney, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation may cause toxic effects as noted under **INHALATION (BREATHING)**. Prolonged or repeated exposure may cause central nervous system and kidney damage or have mutagenic effects. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis). Contains material which may cause birth defects.

CANCER INFORMATION: This product contains tetrachloroethylene which may cause cancer. Risk of cancer depends on duration and level of exposure.. For more information, see **SECTION 11: CARCINOGENICITY**.

Also see **SECTION 15: CALIFORNIA**.

POTENTIAL ENVIRONMENTAL EFFECTS

Product is toxic to fish. Also see **SECTION 12: ECOLOGICAL INFORMATION**.

SECTION 4: FIRST AID MEASURES

INHALATION (BREATHING): Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

EYES: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

SKIN: Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.

INGESTION (SWALLOWING): Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIANS: Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

SECTION 5: FIRE FIGHTING MEASURES
--

FLASH POINT: 105°F (40°C) Tag Closed Cup

FLAMMABLE LIMITS IN AIR: LOWER: 0.7 VOL% (minimum) UPPER: 5 VOL% (maximum)

AUTOIGNITION TEMPERATURE: 410°F (210°C) (minimum)

HAZARDOUS COMBUSTION PRODUCTS: Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.

CONDITIONS OF FLAMMABILITY: Heat, sparks, or flame.

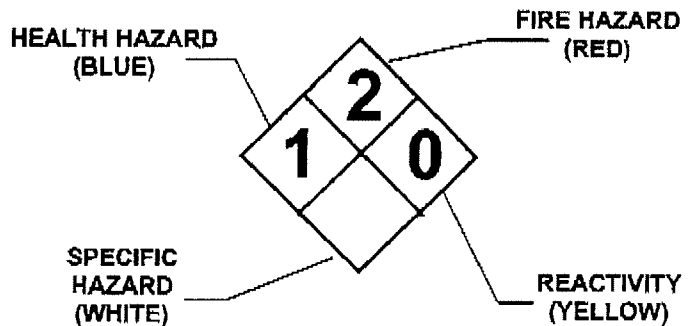
EXTINGUISHING MEDIA: Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

NFPA 704

HAZARD IDENTIFICATION:

This information is intended solely for the use by individuals trained in this system.



FIRE FIGHTING INSTRUCTIONS:

Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

FIRE AND EXPLOSION HAZARDS:

Vapor explosion hazard indoors, outdoors, or in sewers. Vapors may travel to ignition source and flashback. Vapors will spread along the ground and collect in low or confined areas. Run-off to sewer may create a fire hazard. Heated containers may rupture or be thrown into the air. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **SECTION 15: REGULATORY INFORMATION**.

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

SECTION 7: HANDLING AND STORAGE

- HANDLING:** Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.
- SHIPPING AND STORING:** Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORTATION INFORMATION** for Packing Group information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- ENGINEERING CONTROLS:** Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

PERSONAL PROTECTIVE EQUIPMENT

- RESPIRATORY PROTECTION:** Use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.
- EYE PROTECTION:** Where eye contact is likely, wear chemical goggles; contact lens use is not recommended.

SAFETY-KLEEN 105 SOLVENT RECYCLED
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SKIN PROTECTION: Where skin contact is likely, wear nitrile, supported neoprene, Viton, polyvinyl alcohol (PVA), laminate (Ansell Edmont Barrier®, North Silver Shield®, Safety 4 4h®) or equivalent protective gloves; use of natural rubber (latex), polyvinyl chloride (PVC) or equivalent gloves is not recommended.

To avoid prolonged or repeated contact with product where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

PERSONAL HYGIENE: Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with this product.

OTHER PROTECTIVE EQUIPMENT: Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, AND ODOR: Liquid, clear and green, mild hydrocarbon odor.

ODOR THRESHOLD: 30 ppm (based on Stoddard Solvent)

MOLECULAR WEIGHT: Not available.

SPECIFIC GRAVITY: 0.77 to 0.80 at 60°F (15.6°C) (water = 1)

DENSITY: 6.4 to 6.7 LB/US gal (770 to 800 g/l)

VAPOR DENSITY: 5 (air = 1) (approximately)

VAPOR PRESSURE: 0.4 mm Hg at 68°F (20°C) (approximately)
1.0 mm Hg at 100°F (37°C) (approximately)

BOILING POINT: 310°F (155°C) (initial)

FREEZING/MELTING POINT: -45°F (-43°C) (maximum)

pH: Not applicable.

EVAPORATION RATE: 0.1 (butyl acetate = 1) (based on Stoddard Solvent)

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SOLUBILITY IN WATER: Insoluble.

FLASH POINT: 105°F (40°C) Tag Closed Cup

FLAMMABLE LIMITS IN AIR: **LOWER:** 0.7 VOL% (minimum)
UPPER: 5 VOL% (maximum)

AUTOIGNITION TEMPERATURE: 410°F (210°C) (minimum)

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.

INCOMPATIBILITY: Avoid acids, alkalis, oxidizing agents, reducing agents, reactive metals or reactive halogens.

REACTIVITY: Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

HAZARDOUS DECOMPOSITION PRODUCTS: None under normal temperatures and pressures. See also **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS**.

SECTION 11: TOXICOLOGICAL INFORMATION

SENSITIZATION: Based on best current information, there is no known human sensitization associated with this product.

MUTAGENICITY: Tetrachloroethylene has demonstrated human effects of mutagenicity.

Based on best current information, the other component listed in **SECTION 2** is not a mutagen.

SAFETY-KLEEN 105 SOLVENT RECYCLED
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CARCINOGENICITY: Tetrachloroethylene is categorized by IARC as probably carcinogenic to humans (Group 2A). Tetrachloroethylene is listed by NTP as having sufficient evidence of carcinogenicity in experimental animals, but is not known or reasonably anticipated to be a human carcinogen according to NTP. Tetrachloroethylene is categorized by ACGIH as a confirmed animal carcinogen with unknown relevance to humans (A3).

Also see **SECTION 3: CANCER INFORMATION** and **SECTION 15: CALIFORNIA**.

REPRODUCTIVE TOXICITY: Based on best current information, there is no known reproductive toxicity associated with this product.

Also see **SECTION 15: CALIFORNIA**.

TERATOGENICITY: Tetrachloroethylene has demonstrated animal effects of teratogenicity.

Based on best current information, the other component listed in **SECTION 2** is not a teratogen.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there are no known toxicologically synergistic products associated with this product.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: 2.9 mg/L 96 hour LC₅₀ Rainbow trout, Donaldson trout (Oncorhynchus mykiss) (based on Petroleum distillates, hydrotreated light).

Component Analysis - Ecotoxicity - Aquatic Toxicity

Perchloroethylene (127-18-4)

Test & Species		Conditions
96 Hr LC50 rainbow trout	5.28 mg/L	Static
96 Hr LC50 fathead minnow	13.4 mg/L	flow-through
96 Hr LC50 bluegill	12.9 mg/L	Static

OCTANOL/WATER PARTITION COEFFICIENT: Not available.

VOLATILE ORGANIC COMPOUNDS: 100 WT%; 6.4 to 6.7 LB/US gal; 770 to 800 g/l
As per 40 CFR Part 51.100(s).

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

USEPA WASTE CODE(S): D001, D018, D039 and D040
Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product.

SECTION 14: TRANSPORT INFORMATION

DOT: **Bulk Packages (>119 Gallons):**
Shipping Name: Combustible liquid, n.o.s. (petroleum naphtha) **UN/NA #:** NA1993. **Hazard Class:** Combustible liquid. **Packing Group:** III
Required Placards: Class 3, NA1993

Non-bulk Packages (<120 Gallons) (shipments via vessel and aircraft must use bulk package shipping description):
Shipping Name: Cleaning compounds (Petroleum naphtha) (Not US DOT regulated). **UN/NA #:** None. **Hazard Class:** None **Packing Group:** None **Required Label(s):** None

TDG: **Large Means of Containment:**
Shipping Name: PETROLEUM DISTILLATES, N.O.S. (petroleum naphtha). **UN/NA #:** UN1268 **Hazard Class:** 3 **Packing Group:** III
Required Placards: Class 3, UN1268

Small Means of Containment (shipments via aircraft must use large means of containment shipping description) :
Shipping Name: CLEANING COMPOUNDS (petroleum naphtha) (Not TDG regulated). **UN/NA #:** None **Hazard Class:** None **Packing Group:** None **Required Label(s):** None

EMERGENCY RESPONSE GUIDE NUMBER: 128
Reference *North American Emergency Response Guidebook*

SAFETY-KLEEN 105 SOLVENT RECYCLED
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SECTION 15: REGULATORY INFORMATION

USA REGULATIONS

SARA SECTIONS 302 AND 304: Based on the ingredients listed in **SECTION 2**, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA SECTIONS 311 AND 312: This product poses the following health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):
Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard
Fire Hazard

SARA SECTION 313: This product does contain a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

Material	CAS
Perchloroethylene	127-18-4

CERCLA: Based on the ingredients listed in **SECTION 2**, this product contains the following "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):

Material	CAS	RQ
Perchloroethylene	127-18-4	100 lb (45.4 kg)

TSCA: All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

CALIFORNIA: This product may contain a detectable amount of benzene CAS 71-43-2, p-dichlorobenzene CAS 106-46-7, methylene chloride CAS 75-09-2, perchloroethylene CAS 127-18-4 and trichloroethylene CAS 79-01-6. **WARNING:** These chemicals are known to the State of California to cause cancer.

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This product may contain a detectable amount of benzene CAS 71-43-2 and toluene CAS 108-88-3. **WARNING:** These chemicals are known to the State of California to cause birth defects or other reproductive harm.

CANADIAN REGULATIONS

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

WHMIS: Class B3 - Combustible Liquid
Class D2B - Irritating to eyes and skin.
Class D2A - Contains component that may cause cancer.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

All the components of this product are listed on, or are automatically included as "substance occurring in nature" on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

SECTION 16. OTHER INFORMATION

REVISION INFORMATION: This MSDS has been revised in the following sections:
Section 15: Corrected CAS for Perc.

LABEL/OTHER INFORMATION: This product is United States Department of Agriculture (USDA) approved, ETL classified and Factory Mutual (FM) approved.

User assumes all risks incident to the use of this (these) product(s). To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the product(s) as supplied to the user.



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INTRODUCING
**SAFETY-KLEEN'S NEW PRO CLEANING
 PRODUCTS AND HAND CLEANERS**

FACSIMILE TRANSMITTAL SHEET

TO: Dave FROM: Christel
 COMPANY: A&R Transport DATE: 04/06/07
 FAX NUMBER: 256-350-8623 TOTAL NO. OF PAGES INCLUDING COVER: 13
 PHONE NUMBER: _____ SENDER'S PHONE NUMBER: 256-851-9492
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- URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

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SAFETY-KLEEN SYSTEMS, INC.
 2221 HWY 72 EAST
 HUNTSVILLE, ALABAMA 35810

**SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SAFETY-KLEEN 105 SOLVENT RECYCLED

SYNONYMS: Parts Washer Solvent; Petroleum Distillates; Petroleum Naphtha; Naphtha, Solvent; Stoddard Solvent; Mineral Spirits.

PRODUCT CODE: 6614, 6617, 1011662, 1014662

PRODUCT USE: Cleaning and degreasing metal parts.
If this product is used in combination with other products, refer to the Material Safety Data Sheet for those products.
FOR COMMERCIAL USE ONLY.

24-HOUR EMERGENCY PHONE NUMBERS

These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.

	MEDICAL:	TRANSPORTATION (SPILL):
	1-800-468-1760	1-800-468-1760

SUPPLIER: Safety-Kleen Systems, Inc.
5400 Legacy Drive
Cluster II, Building 3
Plano, Texas 75024
USA
1-800-669-5740
www.Safety-Kleen.com

TECHNICAL INFORMATION: 1-800-669-5740 Press 1 then 1 then Enter 7500

MSDS FORM NUMBER: 82310

ISSUE: October 21, 2005

ORIGINAL ISSUE: April 8, 1976

SUPERSEDES: August 11, 2005

PREPARED BY: Product MSDS Coordinator

APPROVED BY: MSDS Task Force

SAFETY-KLEEN 105 SOLVENT RECYCLED
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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

WT%	NAME	SYNONYM	CAS NO.	OSHA PEL**		ACGIH TLV®		LD ^a	LC ^b
				TWA	STEL	TWA	STEL		
99-100	Distillates (petroleum), hydrotreated light	N. Av.	64742-47-8	500 ^c ppm 2900 ^c mg/m ³	N. Av.	100 ^c	N. Av.	5000 ^c mg/kg	5500 ^c mg/m ³ /4h
0-0.2*	Tetrachloroethylene	Perchloroethylene; Tetrachloroethene	127-18-4	100 ppm	200 (ceiling)	25	100	2629	34.2 g/m ³ /8h

**OSHA Final PEL value (enforceable). Some States have adopted more stringent values.

N. Av. = Not Available

* Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

^aOral-Rat LD₅₀
^bInhalation-Rat LC₅₀

^cBased on Stoddard Solvent

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE

Liquid, clear and green, mild hydrocarbon odor.

WARNING!

PHYSICAL HAZARDS

Combustible liquid and vapor.

HEALTH HAZARDS

May be harmful if inhaled.
 May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.
 May be harmful if swallowed.
 Contains material that may cause central nervous system and kidney damage.
 Contains material which may cause birth defects.
 Suspect cancer hazard. Contains material (less than 0.2% by weight) which may cause cancer. Risk of cancer depends on duration and level of exposure.

ENVIRONMENTAL HAZARDS

Toxic to fish.

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POTENTIAL HEALTH EFFECTS

INHALATION (BREATHING): High concentrations of vapor may be harmful if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.

EYES: May cause irritation.

SKIN: May cause irritation. Not likely to be absorbed in harmful amounts.

INGESTION (SWALLOWING): May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing respiratory tract (nose, throat, and lungs), central nervous system, kidney, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation may cause toxic effects as noted under **INHALATION (BREATHING)**. Prolonged or repeated exposure may cause central nervous system and kidney damage or have mutagenic effects. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis). Contains material which may cause birth defects.

CANCER INFORMATION: This product contains tetrachloroethylene which may cause cancer. Risk of cancer depends on duration and level of exposure.. For more information, see **SECTION 11: CARCINOGENICITY**.

Also see **SECTION 15: CALIFORNIA**.

POTENTIAL ENVIRONMENTAL EFFECTS

Product is toxic to fish. Also see **SECTION 12: ECOLOGICAL INFORMATION**.

SECTION 4: FIRST AID MEASURES

INHALATION (BREATHING): Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

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EYES: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

SKIN: Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.

INGESTION (SWALLOWING): Do NOT induce vomiting. Immediately get medical attention. Call **1-800-468-1760** for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIANS: Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call **1-800-468-1760** for additional information.

SECTION 5: FIRE FIGHTING MEASURES
--

FLASH POINT: 105°F (40°C) Tag Closed Cup

FLAMMABLE LIMITS IN AIR: **LOWER:** 0.7 VOL% (minimum) **UPPER:** 5 VOL% (maximum)

AUTOIGNITION TEMPERATURE: 410°F (210°C) (minimum)

HAZARDOUS COMBUSTION PRODUCTS: Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.

CONDITIONS OF FLAMMABILITY: Heat, sparks, or flame.

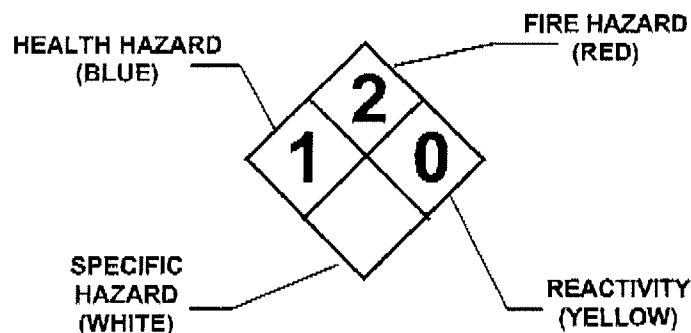
EXTINGUISHING MEDIA: Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

SAFETY-KLEEN 105 SOLVENT RECYCLED
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NFPA 704

HAZARD IDENTIFICATION:

This information is intended solely for the use by individuals trained in this system.



FIRE FIGHTING INSTRUCTIONS:

Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

FIRE AND EXPLOSION HAZARDS:

Vapor explosion hazard indoors, outdoors, or in sewers. Vapors may travel to ignition source and flashback. Vapors will spread along the ground and collect in low or confined areas. Run-off to sewer may create a fire hazard. Heated containers may rupture or be thrown into the air. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **SECTION 15: REGULATORY INFORMATION**.

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SECTION 7: HANDLING AND STORAGE

HANDLING: Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

SHIPPING AND STORING: Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORTATION INFORMATION** for Packing Group information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: Use NIOSH-certified P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

EYE PROTECTION: Where eye contact is likely, wear chemical goggles; contact lens use is not recommended.

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SKIN PROTECTION: Where skin contact is likely, wear nitrile, supported neoprene, Viton, polyvinyl alcohol (PVA), laminate (Ansell Edmont Barrier®, North Silver Shield®, Safety 4 4h®) or equivalent protective gloves; use of natural rubber (latex), polyvinyl chloride (PVC) or equivalent gloves is not recommended.

To avoid prolonged or repeated contact with product where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

PERSONAL HYGIENE: Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with this product.

OTHER PROTECTIVE EQUIPMENT: Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, AND ODOR: Liquid, clear and green, mild hydrocarbon odor.

ODOR THRESHOLD: 30 ppm (based on Stoddard Solvent)

MOLECULAR WEIGHT: Not available.

SPECIFIC GRAVITY: 0.77 to 0.80 at 60°F (15.6°C) (water = 1)

DENSITY: 6.4 to 6.7 LB/US gal (770 to 800 g/l)

VAPOR DENSITY: 5 (air = 1) (approximately)

VAPOR PRESSURE: 0.4 mm Hg at 68°F (20°C) (approximately)
1.0 mm Hg at 100°F (37°C) (approximately)

BOILING POINT: 310°F (155°C) (initial)

FREEZING/MELTING POINT: -45°F (-43°C) (maximum)

pH: Not applicable.

EVAPORATION RATE: 0.1 (butyl acetate = 1) (based on Stoddard Solvent)

SAFETY-KLEEN 105 SOLVENT RECYCLED
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SOLUBILITY IN WATER: Insoluble.

FLASH POINT: 105°F (40°C) Tag Closed Cup

FLAMMABLE LIMITS IN AIR: **LOWER:** 0.7 VOL% (minimum)
UPPER: 5 VOL% (maximum)

AUTOIGNITION TEMPERATURE: 410°F (210°C) (minimum)

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.

INCOMPATIBILITY: Avoid acids, alkalis, oxidizing agents, reducing agents, reactive metals or reactive halogens.

REACTIVITY: Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

HAZARDOUS DECOMPOSITION PRODUCTS: None under normal temperatures and pressures. See also **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.**

SECTION 11: TOXICOLOGICAL INFORMATION

SENSITIZATION: Based on best current information, there is no known human sensitization associated with this product.

MUTAGENICITY: Tetrachloroethylene has demonstrated human effects of mutagenicity.

Based on best current information, the other component listed in **SECTION 2** is not a mutagen.

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

CARCINOGENICITY: Tetrachloroethylene is categorized by IARC as probably carcinogenic to humans (Group 2A). Tetrachloroethylene is listed by NTP as having sufficient evidence of carcinogenicity in experimental animals, but is not known or reasonably anticipated to be a human carcinogen according to NTP. Tetrachloroethylene is categorized by ACGIH as a confirmed animal carcinogen with unknown relevance to humans (A3).

Also see **SECTION 3: CANCER INFORMATION** and **SECTION 15: CALIFORNIA**.

REPRODUCTIVE TOXICITY: Based on best current information, there is no known reproductive toxicity associated with this product.

Also see **SECTION 15: CALIFORNIA**.

TERATOGENICITY: Tetrachloroethylene has demonstrated animal effects of teratogenicity.

Based on best current information, the other component listed in **SECTION 2** is not a teratogen.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there are no known toxicologically synergistic products associated with this product.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: 2.9 mg/L 96 hour LC₅₀ Rainbow trout, Donaldson trout (*Oncorhynchus mykiss*) (based on Petroleum distillates, hydrotreated light).

Component Analysis - Ecotoxicity - Aquatic Toxicity

Perchloroethylene (127-18-4)

Test & Species		Conditions
96 Hr LC50 rainbow trout	5.28 mg/L	Static
96 Hr LC50 fathead minnow	13.4 mg/L	flow-through
96 Hr LC50 bluegill	12.9 mg/L	Static

OCTANOL/WATER PARTITION COEFFICIENT: Not available.

VOLATILE ORGANIC COMPOUNDS: 100 WT%; 6.4 to 6.7 LB/US gal; 770 to 800 g/l
As per 40 CFR Part 51.100(s).

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

USEPA WASTE CODE(S): D001, D018, D039 and D040
Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product.

SECTION 14: TRANSPORT INFORMATION

DOT: **Bulk Packages (>119 Gallons):**
Shipping Name: Combustible liquid, n.o.s. (petroleum naphtha) **UN/NA #:** NA1993. **Hazard Class:** Combustible liquid. **Packing Group:** III
Required Placards: Class 3, NA1993

***See 49 CFR 173.150(f)(1-4)** **Non-bulk Packages (<120 Gallons) (shipments via vessel and aircraft must use bulk package shipping description):**
Shipping Name: Cleaning compounds (Petroleum naphtha) (Not US DOT regulated). **UN/NA #:** None. **Hazard Class:** None **Packing Group:** None **Required Label(s):** None

TDG: **Large Means of Containment:**
Shipping Name: PETROLEUM DISTILLATES, N.O.S. (petroleum naphtha). **UN/NA #:** UN1268 **Hazard Class:** 3 **Packing Group:** III
Required Placards: Class 3, UN1268

***See TDGR 1.33** **Small Means of Containment (shipments via aircraft must use large means of containment shipping description) :**
Shipping Name: CLEANING COMPOUNDS (petroleum naphtha) (Not TDG regulated). **UN/NA #:** None **Hazard Class:** None **Packing Group:** None **Required Label(s):** None

EMERGENCY RESPONSE GUIDE NUMBER: 128
Reference *North American Emergency Response Guidebook*

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS

SARA SECTIONS 302 AND 304: Based on the ingredients listed in **SECTION 2**, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA SECTIONS 311 AND 312: This product poses the following health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):
Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard
Fire Hazard

SARA SECTION 313: This product does contain a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

Material	CAS
Perchloroethylene	127-18-4

CERCLA: Based on the ingredients listed in **SECTION 2**, this product contains the following "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):

Material	CAS	RQ
Perchloroethylene	127-18-4	100 lb (45.4 kg)

TSCA: All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

CALIFORNIA: This product may contain a detectable amount of benzene CAS 71-43-2, p-dichlorobenzene CAS 106-46-7, methylene chloride CAS 75-09-2, perchloroethylene CAS 127-18-4 and trichloroethylene CAS 79-01-6. **WARNING:** These chemicals are known to the State of California to cause cancer.

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This product may contain a detectable amount of benzene CAS 71-43-2 and toluene CAS 108-88-3. **WARNING:** These chemicals are known to the State of California to cause birth defects or other reproductive harm.

CANADIAN REGULATIONS

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

WHMIS: Class B3 - Combustible Liquid
Class D2B - Irritating to eyes and skin.
Class D2A - Contains component that may cause cancer.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All the components of this product are listed on, or are automatically included as "substance occurring in nature" on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

SECTION 16. OTHER INFORMATION

REVISION INFORMATION: This MSDS has been revised in the following sections:
Section 15: Corrected CAS for Perc.

LABEL/OTHER INFORMATION: This product is United States Department of Agriculture (USDA) approved, ETL classified and Factory Mutual (FM) approved.

User assumes all risks incident to the use of this (these) product(s). To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the product(s) as supplied to the user.



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