



Massachusetts Toxics Use Reduction Institute
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May 6, 2014

The Honorable Gina McCarthy
US Environmental Protection Agency
Office of the Administrator, Mail code: 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator McCarthy,

As you know, the Massachusetts Toxics Use Reduction Act (TURA) program works with Massachusetts companies and communities to reduce the use of toxic and hazardous substances in the Commonwealth. The Toxics Use Reduction Institute (TURI) is responsible for working with our Science Advisory Board (SAB) and the other TURA program agencies and committees to help maintain the list of chemicals that are subject to reporting and planning. In that effort, we rely heavily on the US EPA's maintenance of the EPCRA 313 Toxics Release Inventory list, as well as on the CERCLA chemical list. Keeping these lists up to date with emerging health and environmental information is an EPA leadership role that we and other states have always valued tremendously. In recent years, however, we are increasingly observing that substances with emerging and known adverse health and environmental effects are not included on those lists.

There are some toxic chemicals that have consensus lists or reports on their health and environmental impacts, are likely used in industry, and yet are not on regulatory lists. For example, a recent TURI research project on carcinogens in Massachusetts¹ noted that there were 30 known or suspected carcinogens that were not on the TURA list of toxic or hazardous substances (consisting largely of the TRI and CERCLA chemical lists).

We are also concerned with the potential for regrettable substitutions, as companies move away from listed chemicals and substitute those that are not on the list. They infer the absence of the chemical from the list as confirmation that it is, indeed, safer. For example, n propyl bromide (nPB) is a solvent that is largely unregulated by the EPA, but has recently been added to the TURA chemical list. Our SAB evaluated existing information on nPB, as well as recent research and a recommendation by the National Toxicology Program, and recommended that it be added to the TURA chemical list. Further, the SAB recently recommended that it be designated as a Higher Hazard Substance with a lower reporting threshold – on a par with trichloroethylene, perchloroethylene and methylene chloride. We have found that companies are substituting nPB for those other listed halogenated solvents, and as a result of the absence of regulation, believe it is safe and are not controlling emissions or exposure in a manner that is protective of health and the environment.

¹ Opportunities for Cancer Prevention: Trends in the Use and Release of Carcinogens in Massachusetts," Methods and Policy Report #29, MA Toxics Use Reduction Institute, June 2013.

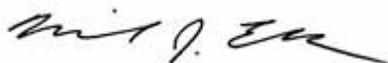
Therefore, we would like to propose that the U.S. EPA to now consider adding the attached list of 25 chemicals to the Toxics Release Inventory (TRI) chemical list (**List A: Proposed Additions to the TRI Chemical List**). These are known and well documented chemicals of concern. It is critical for protecting the health of our citizens that the release of these chemicals be monitored and reported through the TRI program. Each of the chemicals meets the following conditions:

- The chemical is not currently on the Toxics Release Inventory chemical list
- The chemical is a U.S. EPA designated High Production Volume (HPV) chemical that is produced or imported into the U.S. in quantities of 1 million pounds or more per year (as of listing revised January 2006)
- The chemical is used for industrial/manufacturing purposes
- The chemical meets at least one EPCRA Section 313(d)(2) criterion for chemical list additions
- There is supporting evidence from an organization about the hazard classification of the chemical from one of the following sources:
 - IARC: Group 1 (carcinogenic to humans), or Group 2a (possibly carcinogenic to humans)
 - National Toxicology Program (NTP): Known to be Human Carcinogen, Reasonably Anticipated to be Human Carcinogen
 - European Commission: Candidate List of Substances of Very High Concern for Authorization
 - International Chemical Secretariat (ChemSec): Substitute it Now List, Meets SVHC criteria as defined in the REACH regulation
 - California Prop 65: Classified as carcinogen as determined by State Qualified Expert

We are very eager to discuss this proposal with you and your relevant program staff. As a first step, Heather Tenney from our office will be speaking at the TRI Conference later this week, and will be happy to discuss it with you or the TRI program staff.

We realize that this is only one of your agency's many areas of responsibility and appreciate your willingness to make it a priority. We look forward to hearing from you; please feel free to contact us if you have any questions.

Best regards,



Mike Ellenbecker
Director, Toxics Use Reduction Institute



Liz Harriman
Deputy Director, Toxics Use Reduction Institute

List A: Proposed Additions to the TRI Chemical List

The Toxics Use Reduction Institute proposes that the U.S. EPA consider adding the following twenty-five chemicals to the Toxics Release Inventory (TRI) chemical list. These are known and well documented chemicals of concern. It is critical for protecting the health of our citizens that the release of these chemicals be monitored and reported through the TRI program. Each of the chemicals meets the following conditions:

- The chemical is not currently on the Toxics Release Inventory chemical list
- The chemical is a U.S. EPA designated High Production Volume chemical that is produced or imported into the U.S. in quantities of 1 million pounds or more per year (as of listing revised January 2006)
- The chemical is used for industrial/manufacturing purposes
- The chemical meets at least one EPCRA Section 313(d)(2) criterion for chemical list additions
- There is supporting evidence from an organization about the hazard classification of the chemical from one of the following sources:
 - IARC: Group 1 (carcinogenic to humans), or Group 2a (possibly carcinogenic to humans)
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 - California Prop 65: Classified as carcinogen as determined by State Qualified Expert

For each of the proposed chemicals, the table below provides the following information: chemical name, chemical CAS #, chemical use, relevant EPCRA chemical list addition criteria, and supporting evidence.

Chemical Name	Chemical CAS #	Chemical Use (Source: HAZMAP, unless otherwise noted)	EPCRA Section 313(d)(2) Criteria Met	Supporting Evidence for Satisfying EPCRA Listing Criteria
Formamide	75-12-7	Used as a chemical intermediate and ionizing solvent; also used as a softener for glues, gums, and paper; [ACGIH]	(B)(ii)(I) reproductive dysfunctions	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Toxic to Reproduction, Category 1B: Presumed Human Reproductive Toxicant
Hexahydrophthalic Anhydride	85-42-7	Used as a curing agent for epoxy resins and an intermediate for plasticizers and other chemicals; [Hawley] Used in the chemical, polymers, and paints, lacquers, and varnishes industries; [IUCLID]	(B)(ii)(IV) other chronic health effects	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for "Classified as a Respiratory Sensitizer Category 1"

Chemical Name	Chemical CAS #	Chemical Use (Source: HAZMAP, unless otherwise noted)	EPCRA Section 313(d)(2) Criteria Met	Supporting Evidence for Satisfying EPCRA Listing Criteria
1,2,3-trichlorobenzene	87-61-6	Used as an intermediate, dye carrier, transformer fluid, solvent, coolant, and heat transfer medium; Used in lubricants and insecticides; [HSDB]	(C)(ii) its toxicity and persistence in the environment	This chemical is listed on Substitute it Now List: Meets SVHC criteria for "PBT" per the European Chemicals Bureau PBT Working Group
1,3-Dichloro-2-propanol	96-23-1	Used as a solvent (hard resins and nitrocellulose), cement for celluloid, binder for watercolors, and intermediate to make photographic and zapon lacquers; [HSDB]	(B)(i) Cancer or Teratogenic Effects	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Carcinogenic 1B: Presumed to have carcinogenic potential for humans
n-propyl bromide (1-bromopropane)	106-94-5	Used as a solvent substitute "to clean metals and electronics, in adhesive and coating applications, and in aerosol propellant applications." [ACGIH]	(B)(i) Cancer or Teratogenic Effects	This chemical has been recommended by NTP for classification as reasonably anticipated to be human carcinogen.
Aminoethylethanolamine	111-41-1	Used as a chemical intermediate, textile finishing compound, and additive to oils in metal cutting; [HSDB] Occupational asthma reported in solderer and cable joiner; [Malo]	(B)(ii)(I) reproductive dysfunctions	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Toxic to Reproduction 1B: Presumed human reproductive toxicant
Tris(2-chloroethyl) phosphate	115-96-8	"Flame retardant in plastics, especially in flexible foams used in automobiles and furniture, and in rigid foams used for building insulation." [IARC]	(B)(ii)(I) reproductive dysfunctions	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Toxic to Reproduction, Category 1B: Presumed Human Reproductive Toxicant
N-methylformamide	123-39-7	Used to make pesticides and methyl isocyanate and as an extraction solvent for aromatic hydrocarbons; [HSDB] Photodegradation product of Fluridone (herbicide) and metabolite of dimethylformamide (CAS# 68-12-2); [REPROTOX]	(B)(ii)(I) reproductive dysfunctions	This chemical is listed as Substitute it Now List: Meets SVHC criteria for Toxic to Reproduction 1B: Presumed human reproductive toxicant
1,1'-Azobis(formamide)	123-77-3	A blowing or foaming agent, added to increase porosity, used in the manufacturing of plastics and rubbers; Also used as a bleaching and maturing agent in cereal flour (commercial baking) and to produce auto exhaust catalysts; [HSDB]	(B)(ii)(IV) other chronic health effects	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for "Classified as a Respiratory Sensitizer Category 1"

Chemical Name	Chemical CAS #	Chemical Use (Source: HAZMAP, unless otherwise noted)	EPCRA Section 313(d)(2) Criteria Met	Supporting Evidence for Satisfying EPCRA Listing Criteria
N,N-dimethylacetamide	127-19-5	Used as a solvent for many different purposes (paint stripping, extraction, spectroscopy, crystallization, but mainly to make synthetic organic fibers); [ACGIH] Used as a solvent in plastics, resins, and gums; Also used as a catalyst and paint remover; [Hawley] Used in synthetic fiber and resin industries; Used as a solvent in elastane fiber factories; [Reference #1]	(B)(ii)(I) reproductive dysfunctions	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Toxic to Reproduction, Category 1B: Presumed Human Reproductive Toxicant
4-tert-Octylphenol=1,1,3,3-Tetramethyl-4-butylphenol	140-66-9	Used as intermediate for surfactants and other compounds; [HSDB] Used as intermediate for resins, rubber additives, antioxidants, fuel oil stabilizers, adhesives, dyestuffs, fungicides, and bactericides; Also used for vulcanizing synthetic rubber (sulfide derivative) and in airplane fuel; [eChemPortal: SIDSUNEP]	(C)(i) its toxicity	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Aquatic Acute 1: Very toxic to aquatic life, and Aquatic Chronic 1: Very toxic to aquatic life with long lasting effects
Cyclododecane	294-62-2	Used as an intermediate for the production of chemicals to make polyamides, polyesters, synthetic lubricating oils, and nylon 12; as a high-purity solvent; as a mothproofing agent; [HSDB]	(C)(ii) its toxicity and persistence in the environment	This chemical is listed on Substitute it Now List: Meets SVHC criteria for "PBT" per the European Chemicals Bureau PBT Working Group
2,3-dinitrotoluene	602-01-7	No results found in HAZMAP (It is used primarily as organic syntheses, a raw material of toluzine, dyes, and an intermediate, compound of explosive. https://www.env.go.jp/en/chemi/chemicals/profile_erac/profile5/pf1-13.pdf) (Most DNT is used in the production of toluene diisocyanate, which is used to produce flexible polyurethane foams. DNT is hydrogenated to produce toluenediamine, which in turn is phosgenated to give toluene diisocyanate. In this way, about 1.4 billion kilograms are produced annually, as of the years 1999–2000.[3] Other uses include the explosives industry. It is not used by itself as an explosive, but some of the production is converted to TNT. Dinitrotoluene is frequently used as a plasticizer, deterrent coating, and burn rate modifier in propellants (e.g., smokeless gunpowders). As it is carcinogenic[citation needed] and toxic, modern formulations tend to avoid its use. In this application it is often used together with dibutyl phthalate. Source: http://en.wikipedia.org/wiki/2,4-Dinitrotoluene)	(C)(i) its toxicity	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Aquatic Acute 1: Very toxic to aquatic life, and Aquatic Chronic 1: Very toxic to aquatic life with long lasting effects

Chemical Name	Chemical CAS #	Chemical Use (Source: HAZMAP, unless otherwise noted)	EPCRA Section 313(d)(2) Criteria Met	Supporting Evidence for Satisfying EPCRA Listing Criteria
2,5-dinitrotoluene	619-15-8	No results found in HAZMAP (It is used primarily as organic syntheses, a raw material of toluizine, dyes, and an intermediate, compound of explosive. https://www.env.go.jp/en/chemi/chemicals/profile_erac/profile5/pf1-13.pdf)	(B)(i) Cancer or Teratogenic Effects	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Carcinogen 1B: Presumed to have carcinogenic potential for humans
Dibutyltin dichloride (DBTC)	683-18-1	Used as organotin intermediate, a general-purpose stabilizers for polyvinyl chloride, an esterification catalyst, and a veterinary vermicide and tapeworm remedy; [HSDB]	(B)(ii)(I) reproductive dysfunctions	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Toxic to Reproduction, Category 1B: Presumed Human Reproductive Toxicant
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta(g)-2-benzopyran	1222-05-5	Used as fragrance agent in perfumes, soaps, cosmetics, and detergents; [Merck Index]	(C)(i) its toxicity	This Chemical is listed on Substitute it Now List: Meets SVHC criteria for Aquatic Acute 1: Very toxic to aquatic life, and Aquatic Chronic 1: Very toxic to aquatic life with long lasting effects
Triglycidyl isocyanurate, TGIC, Teroxirone, Tris(epoxypropyl) isocyanurate	2451-62-9	Used in powder coatings containing less than 5% TGIC; [ACGIH] Occupational asthma and allergic contact dermatitis reported in workers manufacturing thermosetting paints; [Reference #1]	(B)(ii)(III) heritable genetic mutations	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Mutagenic 1B: Substances which should be regarded as if they induce heritable mutations in the germ cells of humans
Hexabromocyclododecane	3194-55-6	Used as a flame retardant in polystyrene foam and low-density polystyrene foam; Also used in high-impact polystyrene, styrene-acrylonitrile resins, adhesives, and coatings; [HSDB]	(C)(ii) its toxicity and persistence in the environment	This chemical is listed on Substitute it Now List: Meets SVHC criteria for "PBT" per the European Chemicals Bureau PBT Working Group. Stockholm Convention POPs
Nitrilotriacetic acid, trisodium salt	5064-31-3	Used as chelating agent in bleaching and as a sequestrant builder; Also used in tanning, synthetic rubber, textiles, pharmaceuticals, low phosphate and phosphate-free detergents, and in boiler-water treatment; [HSDB] Used for extraction, refining, and processing of metals; in the paper-pulp-board industry; and as an additive to construction materials; [IUCALID]	(B)(i) Cancer or Teratogenic Effects	This chemical is listed as NTP: Reasonably anticipated to be human carcinogen

Chemical Name	Chemical CAS #	Chemical Use (Source: HAZMAP, unless otherwise noted)	EPCRA Section 313(d)(2) Criteria Met	Supporting Evidence for Satisfying EPCRA Listing Criteria
p-a,a,a-Tetrachlorotoluene	5216-25-1	Intermediate for pharmaceuticals, dyes, and other organic chemicals; [Hawley]	(B)(i) Cancer or Teratogenic Effects	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Carcinogen 1B: Presumed to have carcinogenic potential for humans
Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	13674-87-8	Used as a flame retardant (plastics, flexible urethane foams, and textile backcoatings) and plasticizer; [HSDB]	(B)(i) Cancer or Teratogenic Effects	California Prop 65 listed as a Carcinogen per state qualified expert (SQE)
Nonylphenol Note: EPA has issued a proposed rule for the addition of the nonylphenol category	25154-52-3	Used as a chemical intermediate, an additive to plastics and rubber, a stabilizer in drilling muds, a demulsifier in petroleum, and a disinfectant; [HSDB] Used in the chemical, leather processing, paper/pulp, polymers, and textiles industries; Used as a disinfectant, intermediate, lubricant additive, softener, stabilizer, surface-active agent, anti-oxidizing agent, and denaturing agent; [IUCLID]	(C)(i) its toxicity	This chemical is listed on Substitute it Now List: Meets SVHC criteria for Aquatic Acute 1: Very toxic to aquatic life, and Aquatic Chronic 1: Very toxic to aquatic life with long lasting effects
Trixylyl phosphate	25155-23-1	Used in flame retardants, plasticizers, and hydraulic fluids; [HSDB]	(B)(ii)(I) reproductive dysfunctions	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for Toxic to Reproduction, Category 1B: Presumed Human Reproductive Toxicant
Hexahydromethylphthalic anhydride	25550-51-0	Cyclic acid anhydrides: Used to make polyester and alkyd resins, plasticizers, and as epoxy resin hardeners; [Reference #1]	(B)(ii)(IV) other chronic health effects	This chemical is on the Candidate List of Substances of Very High Concern for Authorization: Meets SVHC criteria for "Classified as a Respiratory Sensitizer Category 1"
Diphenyl ether, octabromo derivative	32536-52-0	Used as additive flame retardant; [HSDB] Used as flame retardant additive for polymers (mainly acrylonitrile-butadiene-styrene); Use is severely restricted in the EU; [eChemPortal: ESIS]	(B)(ii)(I) reproductive dysfunctions	This chemical is listed as Substitute it Now List: Meets SVHC criteria for Toxic to Reproduction 1B: Presumed human reproductive toxicant