

Voluntary  
Use and Exposure Information  
Project

Page One

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT THIS FORM

**I. CHEMICAL IDENTIFICATION**

Identify the chemical you are submitting information on:

Chemical name: \_\_\_\_\_

CAS number: \_\_\_\_\_

**II. COMPANY IDENTIFICATION**

Identify the company and location of the facility submitting information:

Company name: \_\_\_\_\_

Site location: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Identify a company technical contact that can respond to inquiries about the information submitted:

Technical contact: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**III. ON-SITE ACTIVITIES**

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*Please do not submit any Confidential Business Information (CBI) on this form. Please use ranges and generic descriptions to provide as much non-CBI information as possible. If no information can be provided without revealing CBI, write the letters "CBI" in the corresponding space on the form. See instructions for submittal of CBI in a separate mailing.* 3/19/96

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Using ranges if necessary to avoid CBI, estimate the amount of the subject chemical for the last calendar year that your site:

imported                      \_\_\_\_\_lb/yr

manufactured                \_\_\_\_\_lb/yr

If you have already provided the above information to EPA and it is still representative please reference that submission here:

Estimate the amount of subject chemical distributed off-site:

\_\_\_\_\_ % of manufacture/import

Narrative Description and Process Flow Schematic: (This information will be used to determine release and exposure scenarios that may require evaluation by EPA.)

Use the following page to provide a narrative description and process flow schematic of on-site activities, providing information that gives an understanding of the nature and extent of potential exposures to the subject chemical. (Attach additional pages if desired.) The narrative and process flow schematic should cover major unit operations and chemical conversions for manufacturing and on-site uses, if applicable. The narrative should provide insight into why and how releases are caused by the process. The schematic should show the points of release of the subject chemical in the workplace and to the environment. In the event the subject chemical is used in many different processes, provide information on each major process instead of each individual process. See sample form for additional guidance.

**III. ON-SITE ACTIVITIES** (continued)

Narrative Description and Process Flow Schematic: (see instructions on previous page)

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**IV. SITE RELEASE AND TRANSFER INFORMATION FOR TRI CHEMICALS**

(Skip this part if you have not reported on the subject chemical for TRI.)

If the subject chemical is a TRI chemical and you submitted a TRI form for the most recent calendar year, fill out this section and skip section V. Your TRI report already contains all of the information requested in section V, except for number of release and transfer days/year. Please estimate the following information on days/year of releases and transfers to supplement your TRI report and then fill out sections VI and VII:

**AIR RELEASES**

Number of days/year the release occurs:

Fugitive (non-point): \_\_\_\_\_

Stack (point): \_\_\_\_\_

**WATER RELEASES**

Number of days/year release occurs: \_\_\_\_\_

**TRANSFER TO PUBLICLY OWNED TREATMENT WORKS (POTW)**

Number of days/year the release occurs: \_\_\_\_\_

2 V. **SITE RELEASE AND TRANSFER INFORMATION FOR NON-TRI CHEMICALS**

(For manufacturing and on-site processing/use if applicable)

The information requested in this section will assist the EPA in determining the likely human and ecological exposures from the chemical releases to the environment. Information will ensure a more accurate representation of potential exposures. Where ranges are provided, and in the absence of better information, estimates of exposures may be based on the value in the range which maximizes exposure.

In this section estimate the total media specific releases after on-site treatment of the chemical from your facility. You may estimate the releases by using monitoring data or any other method you believe appropriate. Estimates should be reported in pounds per year for the last calendar year. Enter the values as whole numbers to not more than two significant figures. For example, if your annual releases are estimated to be 92,360 lb, an estimate of 92,000 lb should be sufficient.

If desired, you can approximate the accuracy of the annual release estimates as a percent. For example, an estimate of stack (point) air releases of 1000 pounds with an accuracy of  $\pm 20$  percent would indicate that the releases could range from 800 to 1200 pounds per year, but not outside this range.

Estimate the number of days per year the release occurs. Enter a whole number with a maximum of 2 significant figures.

Insert "NA" for release activities not associated with the chemical or "0" for releases less than 0.5 pounds per year.

This section and its directions have been adopted and/or modified from the "Toxic Chemical Release Inventory Reporting Form R and Instructions", Revised 1992 Version; January 1993, EPA 745-K-93-001, U.S. EPA. Consult this document for additional information on elements of this reporting form. Call TRI Hotline at 1-800-535-0202 for assistance.

(Part V continued)

A. ON-SITE AIR RELEASES

Estimate the total fugitive or non-point releases to air and the number of days/year the releases occur. This would include: equipment leaks from valves, pump seals, flanges, compressors, sampling connections, open-ended lines; evaporative losses from surface impoundments and spills; releases from building ventilation systems; and any other fugitive or non-point air emission.

In addition estimate the total releases that occur through stacks, vents, pipes, or other confined air streams as stack or point source releases. Include storage tank emissions and releases from pollution control equipment.

If desired, you can provide estimates of the accuracies of your release estimates.

	Estimated Total Annual Releases (lbs.)	Estimated % Accuracy of Estimate (Optional)	# days/years release occurs
Fugitive (non-point)	_____	_____	_____
Stack (point)	_____	_____	_____

Comments: (This section is available to clarify the responses given. Attach additional pages if desired.)

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 (Part V continued)

### B. WATER RELEASES FROM SITE

Estimate the total releases of the chemical leaving the fenceline of your facility from all discharge points to all streams or water bodies. Include all discharges from process outfalls such as pipes, open trenches, releases from on-site wastewater treatment, and contribution from storm water runoff, if applicable. Do not include discharges to a POTW or other off-site wastewater treatment facilities. If desired, you can provide an estimate of the accuracy of your estimate of releases.

	Estimated Total Annual Releases (lbs.)	Estimated % Accuracy of Estimate (Optional)
Water releases:	_____	_____

Number of days/year release occurs: \_\_\_\_\_

Enter the name(s) of the stream(s) or water body(ies) to which the facility directly discharges the chemical. Also, enter the NPDES permit number for the facility. If more than one number is assigned to the facility, list each number for the appropriate discharge quantity and receiving water identified.

Receiving Water Name: \_\_\_\_\_

NPDES number: \_\_\_\_\_

Comments: (This section is available to clarify the responses given. Attach additional pages if desired.)

(Part V continued)

C. ON-SITE LAND RELEASES

Estimate the total releases of the chemical for each category of land disposal, if applicable. Estimate only on-site release. Do not estimates leaks from landfills separately. This should accounted for in your estimate of total landfill release.

Releases to Land Treatment/Land Amendment includes all waste containing the chemical that is applied or incorporated into soil on-site. Do not include waste that is landfilled.

Surface impoundments are natural topographic depressions, man-made excavations, or diked areas formed primarily of earthened materials designed to hold an accumulation of the chemical.

Other releases include any amount of the chemical that is released to land other than those listed. An example may be the accidental release of the chemical from an underground pipeline or storage tank.

	Estimated Total Annual Releases (lbs.)	Estimated % Accuracy of Estimate (Optional)
Landfill	_____	_____
Land Treatment/Land Amendment	_____	_____
Surface Impoundments	_____	_____
Underground Injection	_____	_____
Other (specify):	_____	_____

Comments: (This section is available to clarify the responses given. Attach additional pages if desired.)



(Part V continued)

D. OFF-SITE TRANSFERS

Estimates of off-site transfers should be similar in accuracy and precision as earlier release estimates.

D1. Transfer to Publicly Owned Treatment Works (POTW)

Number of days/year the release occurs: \_\_\_\_\_

Estimate the total quantity of the subject chemical, not the waste stream, transferred to the POTW. Complete section V.A. for each POTW to which your facility discharges wastewater containing the chemical. Enter the POTW's NPDES permit number, if known.

Annual Transfer (lb): \_\_\_\_\_

Estimated % Accuracy of Transfer Estimate (optional) (%): \_\_\_\_\_

POTW Name: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City: \_\_\_\_\_ County: \_\_\_\_\_  
 State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
 NPDES number: \_\_\_\_\_

Comments: (This section is available to clarify the responses given. Attach additional pages if desired.)

(Part V continued)

D2. TRANSFERS TO OTHER OFF-SITE LOCATIONS

In this section estimate the quantity of the subject chemical, not the waste stream, transferred and the accuracy of the estimate for each category listed. If your facility sends the subject chemical in waste to an off-site location where some of the chemical is to be recycled while the remainder to be treated, estimate each separately (i.e., waste treatment and recycle activities).

	Estimated Annual Transfers (lbs)	Estimated % accuracy of estimate (optional)
Incineration	_____	_____
Wastewater Treatment (Excluding POTW)	_____	_____
Underground Injection	_____	_____
Hazardous Waste (RCRA Subtitle C) landfill	_____	_____
Other landfill	_____	_____
Recycle or Recovery	_____	_____
Unknown or Other	_____	_____

Comments: (This section is available to clarify the responses given. Attach additional pages if desired.)

**VI. ON-SITE WORKPLACE EXPOSURE**

This information will assist EPA in characterizing the number of workers potentially exposed and the magnitude, frequency, and duration of potential exposure. When providing monitoring data, ensure that data is linked with worker activities described in question 2.

1. Estimate the number of workers potentially exposed routinely to the subject chemical for each of the exposure duration times. If a worker is involved in more than one activity, enter only his/her most typical activity in the table. Don't count a worker more than once. The total number in the table should equal the total number of workers potentially exposed.

hrs/day	Days/yr			
	<10	10-100	100-250	>250
<.25				
.25-1				
1-8				
>8				

2. Describe the routine worker activities to which the workers in question 1 are exposed: sampling, removal of filter cake, and drumming of liquids, manufacture an article, etc. For these activities describe the physical state of the subject chemical: liquid, gas, particulate, or aerosol, etc., and if in a mixture, the chemical's concentration:

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(Part VI continued)

3. Provide industrial hygiene monitoring data, if available, with a brief description of the sampling method and exposure scenario monitored, e.g. describe the specific worker activities performed by the individuals monitored. For privacy considerations, please do not include any personal identifiers such as a worker's name or social security number with any data submitted to EPA.

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4. Briefly describe the engineering controls used to minimize exposure to this chemical:

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5. Briefly list the personal protective equipment your workers regularly wear to prevent exposure of this chemical:

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Comments: (This section is available to clarify the responses given. Attach additional pages if desired.)

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## VII. CHEMICAL END USES

The Chemical End Uses section provides EPA information which the agency can use to identify likely exposure scenarios and estimate exposure levels for populations of interest. The information in the form alerts EPA to the presence of the chemical of interest in a consumer, commercial, or industrial product that may lead to exposure either directly through use or indirectly through release to the environment. Knowledge that a chemical is consumed as an intermediate or is a catalyst that never leaves the user's site tells EPA that the chemical is a product where no further exposure occurs. The physical form of the chemical and the percent concentration can be used to estimate exposure concentrations.

Since the non-confidential data to be submitted will be available to the public, it is very important to determine which information is confidential before completing the form. Submitters of the form should be sensitive to information their *customers* may hold confidential, and should refer to any confidential disclosure agreement with them. If you are in doubt concerning customer CBI, please consult the customer or the appropriate department in your company.

### A. END USE AS AN INTERMEDIATE CONSUMED TO MAKE OTHER CHEMICALS

List your major product chemical classes that consume the highest volume of the subject chemical on-site (A1) and off-site (A2). If you manufacture a small number of distinct chemicals using the subject chemical, you may prefer to list specific chemical names rather than chemical classes. Distinguish between on-site use as an intermediate and off-site use as an intermediate. Also provide, for each use, a percentage of the total volume manufactured or imported, using total reported in Part III, page 2. You may wish to provide ranges for this data to avoid revealing CBI.

#### A1. On-site Use as a Intermediate:

This information will be used by EPA to develop a sense of the extent of manufacturing and processing operations at your facility that may lead to potential exposures to the subject chemical.

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(Part VII.A continued)

Product chemical class or product chemical (Include CAS number if appropriate)	% of total* volume of subject chemical manufactured or imported
1. _____	_____ %
2. _____	_____ %
3. _____	_____ %
4. _____	_____ %
5. _____	_____ %

\* As reported in Part III, p.2

A2. Off-site Use as an Intermediate:

This information will be used by EPA to identify downstream use of the chemical as an intermediate. This information will be used to identify the potential for additional exposures to the subject chemical.

Product chemical class or product chemical (Include CAS number if appropriate)	% of total volume of subject chemical manufactured or imported*
1. _____	_____ %
2. _____	_____ %
3. _____	_____ %
4. _____	_____ %
5. _____	_____ %

\* As reported in Part III, p.2

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(Part VII continued)

## B. END USES OTHER THAN AS A CONSUMED INTERMEDIATE

Please complete an end use section on the following page (page 16) for each known non-intermediate end use of the chemical. Please copy page 16 to allow for completion of as many end use sections as necessary to account for all non-intermediate end uses of the chemical known to you.

Describe, as far as you know, the function, the application, and the setting for each of the non-intermediate end uses of the chemical. End Use here means the final product or article in which the chemical occurs prior to ultimate treatment, disposal or recycling.

### EXAMPLES:

- 1) An adhesive (function) for wood products fabrication of underlayment (application) used in residential dwellings (setting).
- 2) A filler (function) in caulking (application) used in construction of marine vessels (setting).
- 3) A solvent (function) used in paint strippers (application) in an industrial setting (setting).

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**B. END USES OTHER THAN AS CONSUMED INTERMEDIATE**  
(copy to cover all non-intermediate end uses)

Use Number ___ of ___	
Description of chemical end use _____	
_____	
_____	
_____	
Percent of total manufactured or imported volume going to this use ___% $\pm$ ___%	Check all physical forms of the chemical during this use:
If used in a mixture check appropriate box to indicate weight fraction. Average values are acceptable:	
<input type="checkbox"/> < 1%	<input type="checkbox"/> Aerosol
<input type="checkbox"/> 1-30%	<input type="checkbox"/> Dry Powder
<input type="checkbox"/> 30-60%	<input type="checkbox"/> Pellets or large crystals
<input type="checkbox"/> 60-90%	<input type="checkbox"/> Water- or solvent- wet solid
<input type="checkbox"/> > 90%	<input type="checkbox"/> Gas or vapor
	<input type="checkbox"/> Liquid solution
	<input type="checkbox"/> Other (Please explain) _____

Use Number ___ of ___	
Description of chemical end use _____	
_____	
_____	
_____	
Percent of total manufactured or imported volume going to this use ___% $\pm$ ___%	Check all physical forms of the chemical during this use:
If used in a mixture check appropriate box to indicate weight fraction. Average values are acceptable:	
<input type="checkbox"/> < 1%	<input type="checkbox"/> Aerosol
<input type="checkbox"/> 1-30%	<input type="checkbox"/> Dry Powder
<input type="checkbox"/> 30-60%	<input type="checkbox"/> Pellets or large crystals
<input type="checkbox"/> 60-90%	<input type="checkbox"/> Water- or solvent- wet solid
<input type="checkbox"/> > 90%	<input type="checkbox"/> Gas or vapor
	<input type="checkbox"/> Liquid solution
	<input type="checkbox"/> Other (Please explain) _____





