



# **POLLUTION PREVENTION AND THE TOXICS RELEASE INVENTORY**

**USING TRI TOOLS TO FIND P2 DATA**

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# PRESENTATION OVERVIEW

- Quick intro to TRI
- Pollution prevention data
- Tools demonstration:
  - TRI Toxics Tracker
  - Solvent Substitutions
- Questions and discussion

# WHAT IS THE TRI?

TRI-listed chemicals may pose a threat to human health and the environment

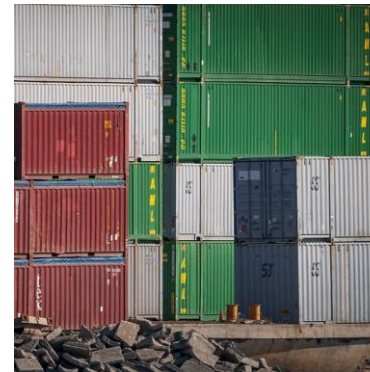
TRI tracks the management of these chemicals in waste



ENVIRONMENTAL  
RELEASES



WASTE  
MANAGEMENT



WASTE  
TRANSFERS



POLLUTION  
PREVENTION

# WHAT IS THE TRI?

**800+**

individual chemicals and  
chemical categories

**21,000+**

industrial and federal  
facilities

**SINCE 1987**

annual reporting  
directly from facilities

# WHAT P2 INFORMATION DO FACILITIES REPORT?

- P2 activities
- Barriers to P2 [*optional*]
- Free-text comments [*optional*]

# HOW DO FACILITIES REPORT P2 INFORMATION?

## P2 ACTIVITIES



Select from 24 codes organized into five categories to describe the source reduction activity.

# HOW DO FACILITIES REPORT P2 INFORMATION?

## BARRIERS TO P2

- B1** Insufficient capital
- B2** Require technical information on pollution prevention
- B3** Concern that product quality may decline
- B4** Source reduction unsuccessful
- B5** Specific regulatory/permit burdens
- B6** Maxed out
- B7** No known substitutes or alternatives
- B8** Reduction does not appear to be technically feasible
- B99** Other barriers

# HOW DO FACILITIES REPORT P2 INFORMATION?

## FREE-TEXT COMMENTS

**As facilities add source reduction activities and barriers, they have the option to report additional information in open-ended text fields.**

- Source Reduction
- Waste Management
- Other Information

Facilities can include information not captured by P2 codes alone, e.g:

- Processes affected by source reduction
- Other benefits such as lower water use
- Use of specific materials





# ACCESSING TRI DATA

# NEW! TRI TOOLBOX

- Find tools based on topic or area of interest
- See full suite of TRI tools and data formats
- Find resources on how to use TRI data

The Toxics Release Inventory (TRI) Program tracks the industrial management of toxic chemicals. TRI data are reported annually by industrial and federal facilities that meet reporting requirements. EPA makes these data available through multiple online tools, many of which add context to help make the reported data more understandable.





DEMO  
TRI TOXICS TRACKER

ReportingYear  
3 of 10

CLEAR BACK FORWARD

- Home Page
- Map
- Summary
- Tribal Lands
- Releases
- Waste Managed
- Waste Transfers

You are currently viewing data for facilities based on your search parameters shown in the green bar above

Filters and Options

# Facilities 23,868	# Reporting Years 3 (2021 - 2023)	# Chemicals Reported 568	# Reporting Forms 235,652
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### Pollution Prevention

MORE INFO

Facilities with Source Reduction 3,008	Source Reduction Activities 10,879	Barriers to P2 11,624	Free-Text Comments 24,758
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#### About Pollution Prevention Data

Pollution prevention (P2), also known as "source reduction", is any practice that reduces, eliminates, or prevents the creation of pollution prior to recycling, treatment, disposal, or release into the environment. Facilities are required to report any new source reduction activities each year by selecting codes on the TRI reporting form that best correspond to the implemented activity. If facilities are unable to implement new source reduction activities, they may report barriers to source reduction using barrier codes. Facilities also have the option to provide additional details in comments.

#### Quick Filters:

- Green Chemistry and Engineering Activities
- Source Reduction Reported
- Barriers to P2 Reported

Source Reduction Category

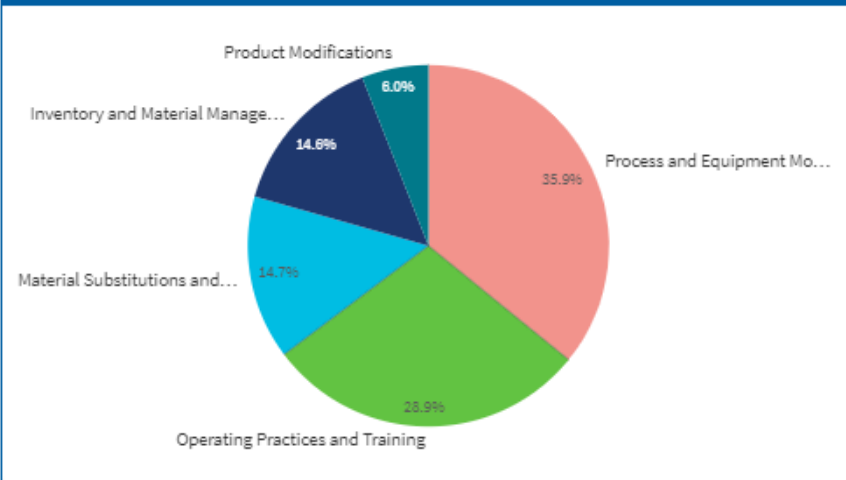
Source Reduction Activity

Barrier to Source Reducti...

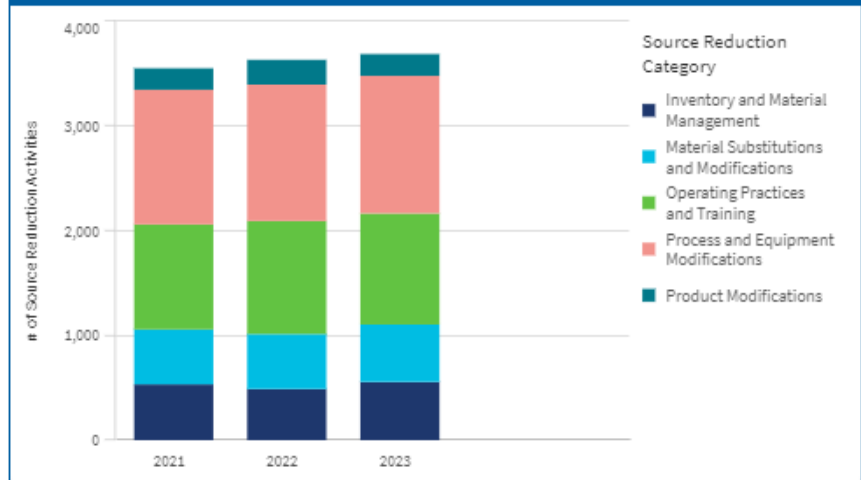
Comment Type

- Source Reduction
- Barriers
- By Chemical
- By Industry Sector
- By Location
- Activities and Comments
- View All Pollution Prevention Charts

Source Reduction Activity by Category



Source Reduction Activity by Category and Year



## SELECT COMMENTS FOR TRI-LISTED SOLVENTS

Pull free-text comments from forms for TRI-listed chemicals commonly used as solvents

## KEYWORD FILTERING

Narrowed group of comments by selecting those containing keywords

### Substitution phrases

- Substitute, alternative

### Processes

- Powder coating, mechanical cleaning

### Known alternatives

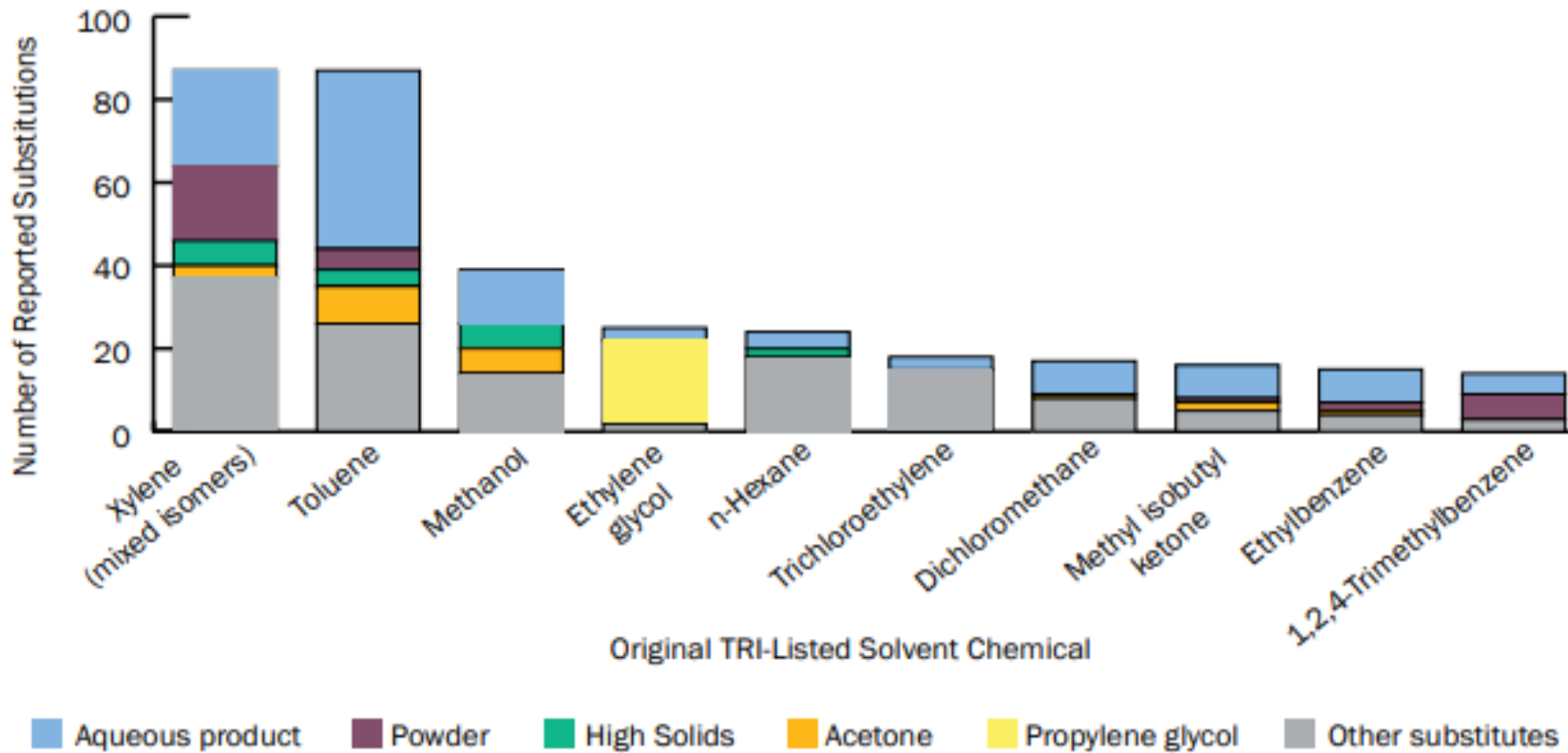
- Aqueous, water-based

## MANUAL REVIEW

Review comments to identify original solvent and replacement chemical or process

## DATABASE OF SPECIFIC SOLVENT SUBSTITUTIONS

# 391 comments describe specific substitutions, reported by facilities in 16 industry sectors



**116 distinct combinations**

## Most replaced

- Xylene (mixed isomers)
- Toluene
- Methanol

## Most common substitutes

- Aqueous products
- Powder coatings
- High solids formulations



DEMO  
TRI SOLVENT  
SUBSTITUTIONS

# ACCESSING SOLVENT SUBSTITUTION INFORMATION REPORTED TO TRI

Webpage | Handout | Interactive table | Downloadable spreadsheet

Solvent Substitution Comments Reported to TRI, 2005–2020

🔍 . 🗄️ 📄 📄 No selections applied
📄 Selections

Industry Sectors with Substitutions

16

Specific Substitution Comments

391

Distinct Substitution Combinations

116

Sub to TRI ⓘ

TSCA Flag ⓘ

SCIL Flag ⓘ

Download current data

Download all data

Definitions

To narrow results, use the flags or the table headers to filter.

TRI Chemical ID 🔍	Original Chemical 🔍	Substitute Chemical 🔍	Substitute Chemical 2 🔍	Comment 🔍	Year 🔍	TRI Facility 🔍	TRI Industry Sector 🔍	NAICS 🔍
0000079005	1,1,2-Trichloroethane	Aqueous product		Installed and brought on line an aqueous washing system to replace the degreaser.	2019	K & G MANUFACTURING CO - 55021KGMNF226PA	332 Fabricated Metals	332710 Machine Shops
0000095636	1,2,4-Trimethylbenzene	Aqueous product		Aquaous parts cleaner replaced solvent based cleaner in early 2011 should see significant reductions for 2011 RY.	2010	RIKER PRODUCTS INC - 4361WRKRPR491ST	336 Transportation Equipment	336399 All Other Motor Vehicle Parts Manufacturing
0000095636	1,2,4-Trimethylbenzene	Aqueous product		Converted to waterbase finish	2013	FLEXSTEEL INDUSTRIES INC - 39759FLXST500IN	337 Furniture	337121 Upholstered Household Furniture Manufacturing
0000095636	1,2,4-Trimethylbenzene	Aqueous product		Internal practices to reduce solvent content of vehicle coatings. Switched from solvent to water based coatings for a significant portion of vehicle manufacturing process.	2012	HONDA DEVELOPMENT & MANUFACTURING OF AMERICA LLC - ALABAMA - 35096HNDMF1800H	336 Transportation Equipment	336112 Light Truck and Utility Vehicle Manufacturing
0000095636	1,2,4-Trimethylbenzene	Aqueous product		Reduction in total amount of chemicals used and going to a water based product for final	2011	SHAHER COMMERCIAL SEATING -	337 Furniture	337211 Wood Office Furniture



# QUESTIONS?

## TRI Program Home

<https://www.epa.gov/tri>

## Additional questions and follow-up

“Contact Us” link

[TRI.Help@epa.gov](mailto:TRI.Help@epa.gov)

[snyder.charlotte@epa.gov](mailto:snyder.charlotte@epa.gov)