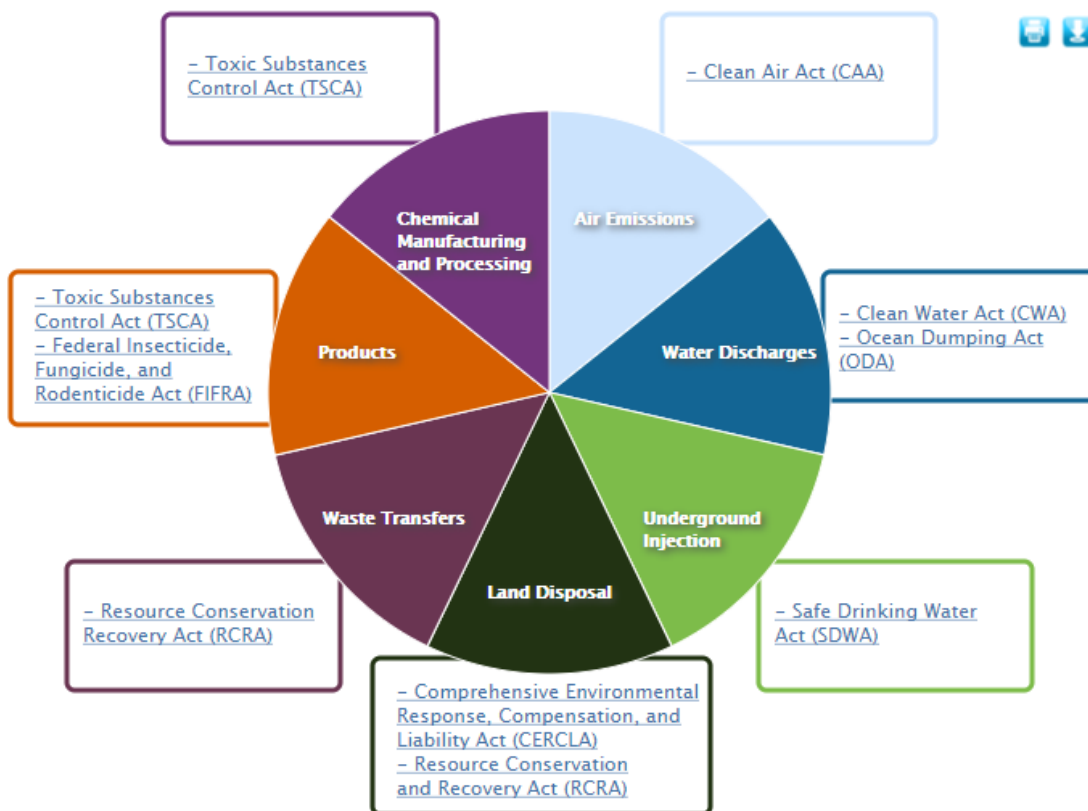


TRI and Beyond

The Toxics Release Inventory (TRI) is a powerful resource that provides the public with information about how TRI chemicals are managed by industrial facilities in the United States. However, there are many other programs at EPA that collect information about chemicals and the environment.

The next figure is an overview of some of the laws that EPA implements, and the industrial activities or processes EPA regulates under these laws. While many programs at EPA focus on one area, TRI covers releases of chemicals to air, water, and land; waste transfers; and waste management activities. As a result, TRI data are especially valuable, as they can be utilized with many other datasets to provide a more complete picture of national trends in chemical use, chemical management, environmental release and other waste management practices, and environmental performance.



Note: The Emergency Planning and Community Right-to-Know Act (EPCRA) establishes requirements for emergency planning, preparedness, and reporting on hazardous and toxic chemicals involving air releases, water releases, land disposal, waste transfers, and waste management.



Throughout EPA, offices use TRI data to support their mission to protect human health and the environment. These uses include analyzing TRI data to inform decisions such as when setting program priorities, providing information to stakeholders such as when working with communities toward a common goal, and many other applications as shown in the table below.

Current Uses of TRI Data by EPA Offices and Regions

EPA Office	Promote Pollution Prevention	Make Decisions	Add Context	Identify Potential Violators	Inform Stakeholders
Air and Radiation		✓	✓		
Land and Emergency Management	✓	✓	✓	✓	✓
Enforcement and Compliance Assurance		✓	✓	✓	
International and Tribal Affairs		✓			✓
Chemical Safety and Pollution Prevention	✓	✓	✓	✓	✓
Water	✓	✓	✓	✓	
Inspector General			✓		
Environmental Information				✓	✓
Regions	1, 2, 3, 5, 6, 7, 8, 9	2, 3, 4, 5, 6, 7, 8, 9	2, 3, 4, 5, 6, 9	1, 2, 3, 4, 6, 7, 9, 10	1, 3, 4, 5, 6, 8, 9

This section of the National Analysis highlights how TRI data complement TSCA data and evaluations, and how TRI has served as a model for other pollutant release inventories around the world.



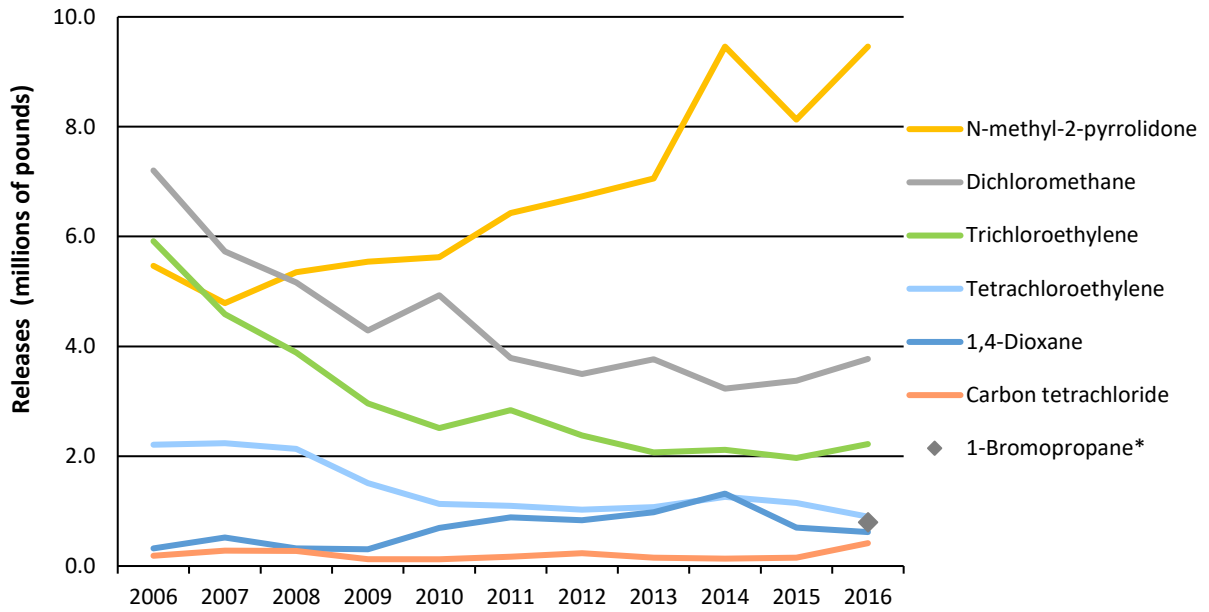
TSCA and TRI

In June 2016, the amended [Toxic Substances Control Act \(TSCA\)](#) was signed into law with bipartisan support in both the U.S. House of Representatives and the Senate. As the nation's primary chemicals management law, existing chemicals in commerce and new chemicals intended for use in commerce will be reviewed for safety through a risk-based process with increased public transparency. EPA has since finalized a rule to establish a process and criteria for identifying high priority chemicals for risk evaluation and low priority chemicals for which risk evaluation is not needed. Additionally, [EPA released scope documents for the initial ten chemicals undergoing risk evaluation under the amended TSCA](#). Most of these chemicals are included on the Toxics Release Inventory (TRI) list of chemicals, for which TRI data are available, as shown in the table below.

Chemicals to be Evaluated	TRI-listed Chemical?
1,4-Dioxane	Yes
1-Bromopropane	Yes
Asbestos	Partially; reportable only if in the friable form
Carbon Tetrachloride	Yes
Cyclic Aliphatic Bromide Cluster	Partially; HBCD reporting starts in 2018
Dichloromethane (also called Methylene Chloride)	Yes
N-methyl-2-pyrrolidone (NMP)	Yes
Pigment Violet 29	No
Trichloroethylene (TCE)	Yes
Tetrachloroethylene	Yes

TRI provides valuable information to the TSCA assessment process and serves as a tool for tracking the nation's progress toward reduced environmental releases of these chemicals and most of the other chemicals that [EPA has identified for further assessment under TSCA](#). This figure shows the trend over time in releases of the TSCA priority chemicals that are TRI-listed.

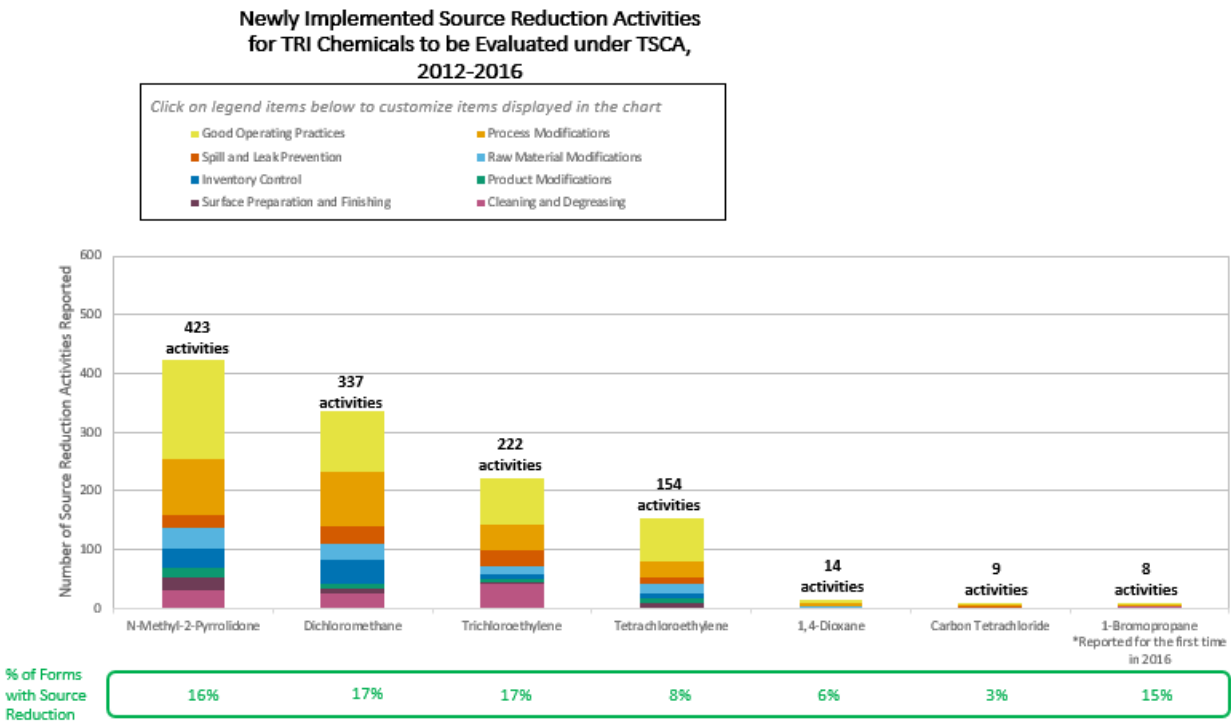
Releases of TSCA Priority Chemicals that are TRI-listed



*1-Bromopropane was reported for the first time in 2016.

Source Reduction Activities for Chemicals to be Evaluated under TSCA

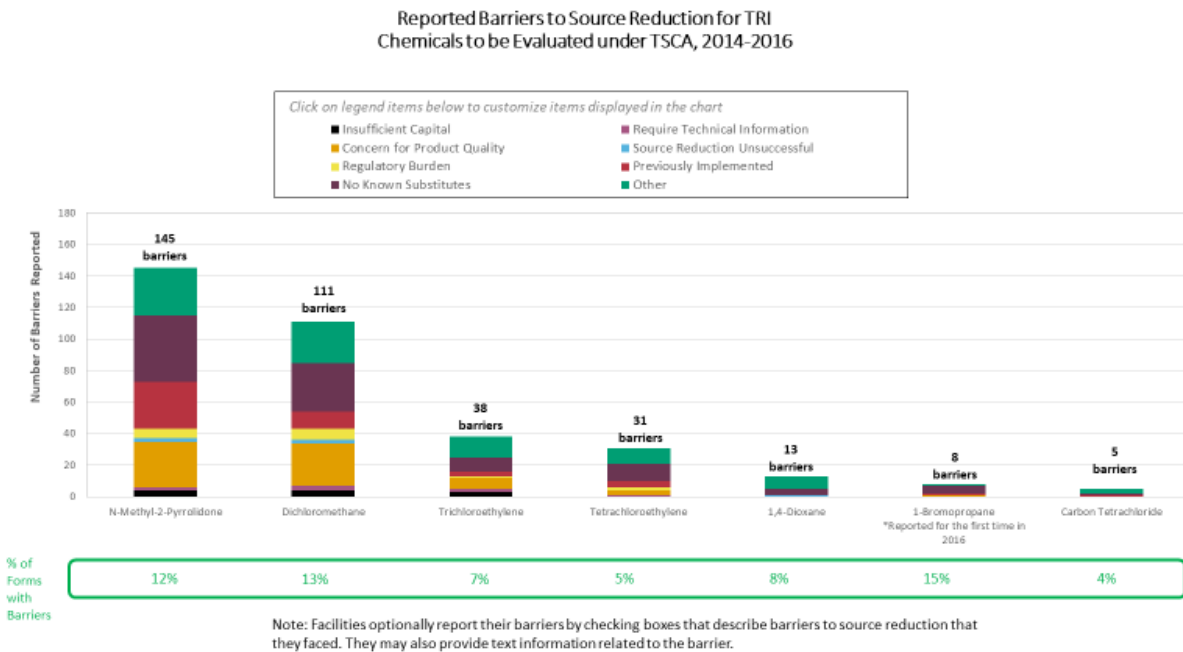
TRI can provide valuable information to TSCA evaluations such as the types of source reduction activities that TRI reporting facilities have implemented to reduce the quantity of the chemical generated as waste, as shown in the figure below.



Note: Facilities report their source reduction activities by selecting codes that describe their activities. These codes fall into one of eight categories listed in the graph legend and are defined in the [TRI Reporting Forms and Instructions](#).

Barriers to Source Reduction for Chemicals to be Evaluated under TSCA

Since 2014, facilities that report to TRI have the option to report barriers they encountered to source reduction. The barriers reported to TRI are shown in the figure below for the seven chemicals that are fully TRI-listed among the first chemicals that EPA will evaluate for potential risks to human health and the environment under the amended Toxic Substances Control Act (TSCA).



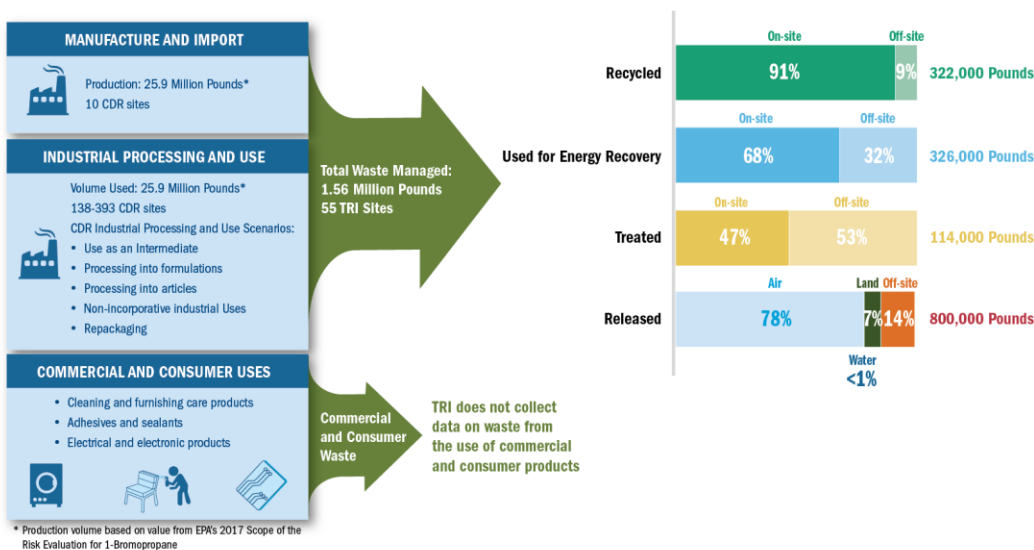
Comparing TRI and Chemical Data Reporting

In addition to the chemical release and management data collected through the TRI Program, EPA collects information about the manufacture (including import) and use of chemicals in U.S. commerce through the Chemical Data Reporting (CDR) rule implemented under TSCA. Combining the chemical information reported to both TRI and CDR provides a more complete picture of a chemical’s lifecycle from sources of import and domestic manufacture to final deposition in the environment or products.

For calendar year 2015 activities (the most recent reporting year common to both TRI and CDR), 8,707 individual chemicals were reported to the TSCA Chemical Data Reporting (CDR), which tracks production and imports. 499 individual chemicals and chemical categories were reported to TRI. Of the chemicals reported to TRI, 250 (50%) were also reported to CDR. The remaining 249 chemicals reported to TRI are either not subject to Chemical Data Reporting under TSCA (such as pesticides, pharmaceuticals, polymers, and TRI-specific chemical categories); the facility is exempt from CDR reporting based on business size thresholds; the chemicals are produced in amounts below the CDR reporting thresholds; or the chemicals are processed or used by facilities that report to TRI, but not manufactured or imported, which are the activities required to be reported to CDR.

To illustrate how TRI information complements the TSCA chemical assessments, one chemical, 1-bromopropane (1-BP), is presented as an example.

CDR and TRI Information for 1-Bromopropane

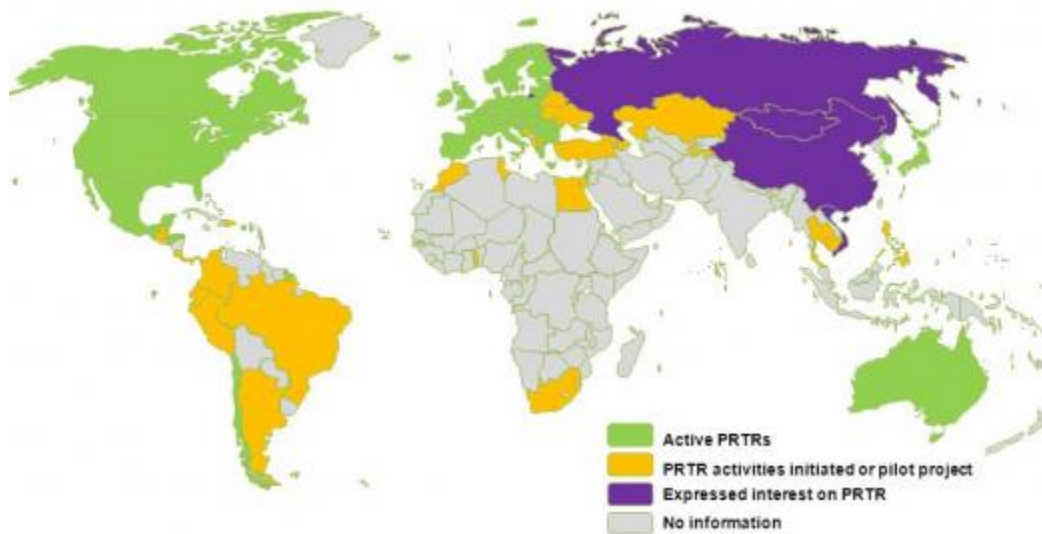




In 2015 (the most recent year of CDR data, which was published in 2016), ten manufacturers, including importers, reported a total production volume of 25.9 million pounds of 1-BP manufactured/imported. Industrial activities reported include use as an intermediate in chemical manufacturing, processing into chemical product formulations (e.g., solvents for cleaning and degreasing and adhesives), processing into articles (e.g., insulation), non-incorporative uses (e.g., solvent degreasing), and repackaging. Commercial and consumer uses reported include adhesives and sealants, cleaning and furnishing care products, and electrical and electronic products. In 2016 (the first year 1-BP was a TRI-listed chemical), 55 facilities filed a TRI form for 1-BP, reporting a total of 1.56 million pounds of waste, most of which (51%) was released.

TRI Around the World

In 1986, the TRI Program was established as the first national Pollutant Release and Transfer Register (PRTR) in the world. Since then, environmental agencies around the world have been increasingly implementing their own PRTR programs with the Toxics Release Inventory (TRI) serving as a model. Currently, at least 50 countries have fully established PRTRs or have implemented pilot programs, as shown in the map below. More are expected to be developed over the coming years, particularly in Asian and South American countries.



Source: United Nations Economic Commission for Europe, 2016

As a role model, TRI participates in activities to inform and support the development and implementation of PRTRs throughout the world by working with the following organizations:

- [Organization for Economic Co-operation and Development \(OECD\)](#) is an intergovernmental organization made up of 35 member countries. The OECD PRTR Working Group enables countries with PRTRs to share experiences, and to improve PRTR information and its use by working collaboratively on activities of mutual interest and global importance. Current PRTR-related activities include: developing methods to make PRTR data from different countries more comparable to enable the use of the data on a global scale, developing and cataloging techniques for estimating emissions, and promoting the use of PRTR information to assess progress toward global sustainability.

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CO-OPERATION
AND DEVELOPMENT



- [United Nations Institute for Training and Research \(UNITAR\)](#) works with developing countries to implement new environmental programs and transfer knowledge and technologies to them from nations with established environmental programs. Currently, UNITAR is working with several partners to institute PRTRs in Belarus, Cambodia, Ecuador, Kazakhstan, Moldova, and Peru.
- The [North American Commission for Environmental Cooperation \(CEC\)](#) addresses North American environmental concerns, helps prevent potential trade and environmental conflicts, and promotes the effective enforcement of environmental law. With established PRTRs in all three North American countries, the CEC publishes an integrated dataset through its [Taking Stock Online website](#).



[Read more about the TRI Around the World.](#)