TOXICS RELEASE INVENTORY

BASIC PLUS DATA FILES DOCUMENTATION

FILE TYPE 2 A: DETAILED SOURCE REDUCTION ACTIVITIES AND METHODS

Updated for RY 2021

August 2022

OVERVIEW OF TRI BASIC PLUS DATA FILES

The TRI "Basic Plus" data files include 10 file types that collectively contain all the data fields from the TRI Reporting Form R and Form A (except Form R Schedule 1). The 10 file types are tab-delimited text (.txt) files packaged into a .zip file.

File	Example	Description of Contents	Form R/Form A Reference
Type 1A	CA_1A_2017.txt	Facility data, chemical identification, chemical uses, on-site releases and management, off-site transfers, summary information	Part I (all), Part II (section 1, 3, 4, 5, 6.1.A, 6.2ABC, 7B, 7C, 8.2.B, 8.4.B, 8.6.

The Basic Plus Data Files are identified (named) by state, file type, and reporting year:

File Name = State + File Type + Reporting Year

For example, the file "CA_1A_2017.txt" contains facility, chemical identification, chemical use, on-site release and waste management, off-site transfer and summary information (File Type 1A) for all facilities located in California (CA) for reporting year 2017.

In addition to the set of data files for each state, there are two other Basic Plus file sets: Federal and National. The Federal files (FED_1A_2017.txt, FED_2A_2017.txt, etc.) contain TRI data for all government-owned-and-operated federal sites. The National files (US_1A_2017.txt, US_2A_2017.txt, etc.) contain TRI data for all U.S. states and territories for a specific year.

DESCRIPTION OF FILE TYPE 2A CONTENTS

The "Type 2A" file contains source reduction data from Section 8 of the TRI Reporting Form R, as shown in the table below. Each record in File Type 2A represents data from a single chemical reporting form (i.e., Form R) submitted by a facility.

All Type 2A files contain data from the following parts and sections of the Form R:

Part	Section	Description
I	1	Reporting Year
I	1	Revision Codes
I	2.1	Trade Secret Indicator
I	4	Facility Identification Information
I	5	Parent Company Information
II	1	Chemical Identification Data
II	8.1	Total Releases
II	8.1a	Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills
II	8.1b	Total other on-site disposal or other releases
II	8.1c	Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills
II	8.1d	Total other off-site disposal or other releases
II	8.2	Quantity used for energy recovery, ON-SITE
II	8.3	Quantity used for energy recovery, OFF-SITE
II	8.4	Quantity recycled, ON-SITE
II	8.5	Quantity recycled, OFF-SITE
II	8.6	Quantity treated, ON-SITE
II	8.7	Quantity treated, OFF-SITE
II	8.8	Quantity released to the environment due to remedial actions, catastrophic events, or one-time events not associated with production processes
II	8.9	Production ratio or activity index
II	8.10	Source reduction activities and methods

Note: In 2005, the TRI Program stopped collecting underground injection control (UIC) identification numbers from facilities on the TRI reporting forms. UIC IDs identify facilities that received permits from state governments to dispose of or release chemical waste into Class I through Class V underground injection wells.

The TRI Program does have some historical UIC IDs that were collected prior to 2005. Many of these, however, are outdated and inaccurate. The TRI Program is also missing UIC IDs for facilities that began reporting to TRI in or after 2005. EPA does not store nor have access to current UIC IDs. Because of this lack of current, accurate and complete data, the TRI Program removed the UIC ID data fields from the TRI Basic Data Files in 2019.

To learn more about UIC permits and underground injection wells see the "Protecting Underground Source of Drinking Water from Underground Injection (UIC)" website at https://www.epa.gov/uic

WHAT'S IN THIS DOCUMENT

The rest of this document is organized as a four-column data table. It describes what information you will find when you download and open any of the "TRI Basic Plus Data: File Type 2A" files.

Column	Description
Number (No.)	The sequential number of the data element in the record
Field Name	The name of the data element (Note: these names correspond to the various column headings in the data files themselves.)
Data Type	'C' for character data (alphanumeric) 'N' for numeric data 'D' for date
Description	A brief statement of what the data element represents, plus its TRI System Source (in **Table Name**. Field Name format) and where on the TRI Reporting Form R the data element is reported (i.e., *reference*). TRI System Source refers to the data element's physical location within EPA's Envirofacts online data warehouse.

When you open any of the Basic Plus data files, you'll see that the contents are delimited by tabs, meaning a tab is placed between each data element. The first row of each file contains column headers, which correspond to the "field names" in this document.

	A	B	C	D
1	REPORTING YEAR	TRADE SECRET INDICATOR	TRIFID	FACILITY NAME
2	2016	NO	37087TSHBM1420T	NOVAMET SPECIALTY PRODUCTS
3	2016	NO	2740WNVRNM837TR	ENVIRONMENTAL AIR SYSTEMS INC-TRIAD
4	2016	NO	7585WSNDRS485HI	SANDERSON FARMS OAKWOOD FEED MILL

Example of the first four rows of a Basic Plus data file

REMINDER: Quantities of dioxin and dioxin-like compounds are in grams. Quantities of all other TRI chemicals are reported in pounds. Facilities cannot use range codes to report quantities for dioxin and dioxin-like compounds and other Persistent Bioaccumulative Toxics (PBTs). For a list of PBT chemicals see Appendix C - Persistent Bioaccumulative Toxics (PBTs).

HELPFUL RESOURCES FOR USERS OF DOWNLOADABLE DATA FILES

When using any of the downloadable TRI data files, it will be helpful for users to refer to the TRI Reporting Form R, the TRI Reporting Forms & Instructions document, and the Envirofacts TRI data model. The Reporting Forms & Instructions document and sample reporting forms are available online in the GuideME application at www.epa.gov/tri/guideme. The Envirofacts TRI data model is found at https://www.epa.gov/enviro/tri-model. These resources provide useful context and have additional details about certain data elements.

FILE TYPE 2A CONTENTS

No.	Field Name	Type	Description
1	FORM TYPE	C	Indicates whether the Reporting Form R or Form A Certification Statement was submitted. R = Form R A = Form A Certification Statement *Source:* **TRI_REPORTING_FORM.**FORM_TYPE_IND *Reference:* Type of Form Used
2	REPORTING YEAR	C	The calendar year in which the reported activities occurred. *Source:* **TRI_REPORTING_FORM.**REPORTING_YEAR *Reference:* Part I, Section 1
3	TRADE SECRET INDICATOR	C	Flag indicating whether the reporting facility claims the identity of the chemical or chemical category as a trade secret. Yes = Checked (Trade Secret) No = Not checked *Note: Only sanitized trade secret submissions are stored in the TRI database.* *Source:* **TRI_REPORTING_FORM.**TRADE_SECRET_IND *Reference*: Part I, Section 2.1
4	TRIFD	C	The unique TRI facility identification (TRIFID) number assigned to each facility for TRI reporting purposes. *NOTE: The content of this field is <u>not</u> changed to match facility ownership, or zip code changes. Rather, the TRIFD identifies a specific geographical location (also identified by the latitude and longitude of that location).* *Source:* **TRI_FACILITY.**TRI_FACILITY_ID *Reference:* Part I, Section 4.1
5	FACILITY NAME	C	Name of the reporting facility. *Source:* **TRI_FACILITY.**FACILITY_NAME *Reference:* Part I, Section 4.1
6	FACILITY STREET	C	Street address of the reporting facility. *Source:* **TRI_FACILITY.**STREET_ADDRESS *Reference:* Part I, Section 4.1
7	FACILITY CITY	C	City in which the reporting facility is located. *Source:* **TRI_FACILITY.**CITY_NAME *Reference:* Part I, Section 4.1
8	FACILITY COUNTY	C	County in which the reporting facility is located. *Source:* **TRI_FACILITY.**COUNTY_NAME *Reference:* Part I, Section 4.1
9	FACILITY STATE	C	Two-letter state code of the reporting facility. *Source:* **TRI_FACILITY.**STATE_ABBR *Reference:* Part I, Section 4.1
10	FACILITY ZIP CODE	C	ZIP code of the reporting facility. *Source:* **TRI_FACILITY.**ZIP_CODE *Reference:* Part I, Section 4.1
11	BIA CODE	C	Three-letter Bureau of Indian Affairs (BIA) code indicating the tribal land on which the facility is located. *Source:* **TRI_FACILITY.**BIA_TRIBAL_CODE
12	TRIBE NAME	C	Name of the tribe on whose land the reporting facility is located. *Source:* **TRI_TRIBE_DESC**.TRIBE

13	ENTIRE FACILITY IND	C	Flag indicating whether the information covers an entire facility or part of a facility. Yes = entire No = partial *Source:* **TRI_REPORTING_FORM.**ENTIRE_FAC *Reference:* Part I, Section 4.2a
14	PARTIAL FACILITY IND	C	Flag indicating whether the information covers an entire facility or part of a facility. Yes = partial No = entire *Source:* **TRI_REPORTING_FORM.**PARTIAL_FAC *Reference:* Part I, Section 4.2b
15	FEDERAL FACILITY IND	C	Flag indicating whether the facility is federally owned and operated. Yes = federal No = non-federal *Source:* **TRI_REPORTING_FORM.**FEDERAL_ FAC_IND *Reference:* Part I Section 4.2c
16	GOCO FACILITY IND	C	Flag indicating whether a facility is a GOCO (Government Owned, Contractor-Operated) facility. Yes = GOCO No = non-GOCO *Source:* **TRI_REPORTING_FORM.**GOCO_ FLAG *Reference:* Part I Section 4.2d
17	ASSIGNED FED. FACILITY FLAG	C	Flag indicating whether the facility is federally owned. Yes = federal No = non-federal *Source:* **TRI_FACILITY.**ASGN_FEDERAL *Reference:* Assigned by the TRI Program
18	ASSIGNED PARTIAL FACILITY FLAG	C	Flag indicating whether the facility is a multi-establishment facility that reports by part. Multi-establishment facilities may have more than one submission for the same chemical in one reporting year. Yes = Partial No = entire *Source:* **TRI_FACILITY**.ASGN_PARTIAL_IND *Reference:* Assigned by the TRI Program
19	PUBLIC CONTACT NAME	C	Name of the designated individual whom the public may contact if clarification of the facility's reported data is needed. *Source:* **TRI_REPORTING_FORM**.PUBLIC_CONTACT_PERSON *Reference:* Part 1, Section 4.4
20	PUBLIC CONTACT PHONE	C	Area code and telephone number of the public contact. *Source:* **TRI_REPORTING_FORM**.PUBLIC_CONTACT_PHONE *Reference:* Part 1, Section 4.4
21	PUBLIC CONTACT PHONE EXT	C	Phone extension of the public contact. *Source:* **TRI_REPORTING_FORM**.PUBLIC_PHONE_EXT *Reference:* Part 1, Section 4.4
22	PUBLIC CONTACT EMAIL	C	Email address of the designated individual whom the public may contact if clarification of the facility's reported data is needed. *Source:* **TRI_REPORTING_FORM**.PUBLIC_CONTACT_PERSON_EMAIL *Reference:* Part 1, Section 4.4

23	PRIMARY SIC CODE	C	Primary 4-digit Standard Industrial Classification (SIC) code. *Note: SIC codes were reported by facilities from RY 1987 through 2005.* *Source:* **TRI_SUBMISSION_SIC.**SIC_CODE *Where:* primary_ind = '1' *Reference:* Part I, Section 4.5a
24	SIC CODE 2	C	Second 4-digit Standard Industrial Classification (SIC) code entered by facility. *Note: SIC codes were reported by facilities from RY 1987 through 2005.* *Source:* **TRI_SUBMISSION_SIC.**SIC_CODE *Where:* sic_sequence_num = '2' *Reference:* Part I, Section 4.5b
25	SIC CODE 3	C	Third 4-digit Standard Industrial Classification(SIC) code entered by facility. *Note: SIC codes reported by facilities from RY 1987 through 2005.* *Source:* **TRI_SUBMISSION_SIC.**SIC_CODE *Where:* sic_sequence_num = '3' *Reference:* Part I, Section 4.5c
26	SIC CODE 4	C	Fourth 4-digit Standard Industrial Classification (SIC) code entered by facility. *Note: SIC codes reported by facilities from RY 1987 through 2005.* *Source:* **TRI_SUBMISSION_SIC.**SIC_CODE *Where:* sic_sequence_num = '4' *Reference:* Part I, Section 4.5d
27	SIC CODE 5	C	Fifth 4-digit Standard Industrial Classification (SIC) code entered by facility. *Note:* SIC codes reported by facilities from RY 1987 through 2005. *Source:* **TRI_SUBMISSION_SIC.** SIC_CODE *Where:* sic_sequence_num = '5' *Reference:* Part I, Section 4.5e
28	SIC CODE 6	C	Sixth 4-digit Standard Industrial Classification (SIC) code entered by facility. *Note: SIC codes reported by facilities from RY 1987 through 2005.* *Source:* **TRI_SUBMISSION_SIC.** SIC_CODE *Where:* sic_sequence_num = '6' *Reference:* Part I, Section 4.5f
29	NAICS ORIGIN	C	Indicates whether North American Industry Classification System (NAICS) codes were reported or assigned. R = Reported A = Assigned *Source:* **TRI_SUBMISSION_NAICS.**SOURCE
30	PRIMARY NAICS CODE	C	Primary 6-digit North American Standard Industry Classification System (NAICS) code. This represents the main business activity at the facility. See Appendix A: "NAICS Codes Assignments" for details. *Note: From RY 2006 to the present, NAICS codes reported by facilities from RY 2006 to present. Prior to RY 2006, NAICS codes were assigned by EPA.* *Source:* **TRI_SUBMISSION_NAICS.**NAICS_CODE *Where:* primary_ind = '1' *Reference:* Part I, Section 4.5a

31	NAICS CODE 2	C	Second 6-digit North American Standard Industry Classification System (NAICS) code entered by facility. See Appendix A: "NAICS Codes Assignments" for details. *Note: From RY 2006 to the present, NAICS codes reported by facilities from RY 2006 to present. Prior to RY 2006, NAICS codes were assigned by EPA.* *Source:* **TRI_SUBMISSION_NAICS.**NAICS_CODE *Where:* naics_sequence_num = '2' *Reference:* Part I, Section 4.5b
32	NAICS CODE 3	C	Third 6-digit North American Standard Industry Classification System (NAICS) code entered by facility. See Appendix A: "NAICS Codes Assignments" for more details. *Note: From RY 2006 to the present, NAICS codes reported by facilities from RY 2006 to present. Prior to RY 2006, NAICS codes were assigned by EPA.* *Source:* **TRI_SUBMISSION_NAICS.**NAICS_CODE *Where:* naics_sequence_num = '3' *Reference:* Part I, Section 4.5b
33	NAICS CODE 4	C	Fourth 6-digit North American Standard Industry Classification System (NAICS) code entered by facility. See Appendix A: "NAICS Codes Assignments" for more details. *Note: From RY 2006 to the present, NAICS codes reported by facilities from RY 2006 to present. Prior to RY 2006, NAICS codes were assigned by EPA.* *Source:* **TRI_SUBMISSION_NAICS.**NAICS_CODE *Where:* naics_sequence_num = '4' *Reference:* Part I, Section 4.5b
34	NAICS CODE 5	C	Fifth 6-digit North American Standard Industry Classification System (NAICS) code entered by facility. See Appendix A: "NAICS Codes Assignments" for more details. *Note: From RY 2006 to the present, NAICS codes reported by facilities from RY 2006 to present. Prior to RY 2006, NAICS codes were assigned by EPA.* *Source:* **TRI_SUBMISSION_NAICS.**NAICS_CODE *Where:* naics_sequence_num = '5' *Reference:* Part I, Section 4.5b
35	NAICS CODE 6	C	Sixth 6-digit North American Standard Industry Classification System (NAICS) code entered by facility. See Appendix A: "NAICS Codes Assignments" for more details. *Note: From RY 2006 to the present, NAICS codes reported by facilities from RY 2006 to present. Prior to RY 2006, NAICS codes were assigned by EPA.* *Source:* **TRI_SUBMISSION_NAICS.**NAICS_CODE *Where:* naics_sequence_num = '6' *Reference:* Part I, Section 4.5b
36	LATITUDE	N	The latitude value that best represents the facility according to EPA's Facility Registry System (FRS). Format: 2-digit whole number followed by a decimal point and 6 digits. *Note: In RY 2005, EPA stopped collecting the latitude value and began obtaining it from FRS.* *Source:* **EPA's Facility Registry System**

37	LONGITUDE	N	The longitude value that best represents the facility according to EPA's Facility Registry System (FRS). 3-digit whole number followed by 6 digits. *Note: In RY 2005, EPA stopped collecting the longitude value and began obtaining it from FRS.* *Source:* **EPA's Facility Registry System**
38	D&B NR A	C	Unique identification number assigned by Dun and Bradstreet to the reporting facility. Dun & Bradstreet is a private financial tracking and accounting firm. *Source:* **TRI_FACILITY_DB.**DB_NUM *Reference:* Part I, Section 4.7a
39	D&B NR B	C	Unique identification number assigned by Dun and Bradstreet to the reporting facility. Dun & Bradstreet is a private financial tracking and accounting firm. *Source:* **TRI_FACILITY_DB.**DB_NUM *Reference:* Part I, Section 4.7b
40	RCRA NR A	C	Twelve-digit alphanumeric identifier assigned by EPA per the Resource Conservation and Recovery Act (RCRA). *Note: In RY 2005, TRI stopped collecting RCRA IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
41	RCRA NR B	C	Twelve-digit alphanumeric identifier assigned by EPA per the Resource Conservation and Recovery Act (RCRA). *Note: In RY 2005, TRI stopped collecting RCRA IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
42	RCRA NR C	C	Twelve-digit alphanumeric identifier assigned by EPA per the Resource Conservation and Recovery Act (RCRA). *Note: In RY 2005, TRI stopped collecting RCRA IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
43	RCRA NR D	C	Twelve-digit alphanumeric identifier assigned by EPA per the Resource Conservation and Recovery Act (RCRA). *Note: In RY 2005, TRI stopped collecting RCRA IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
44	RCRA NR E	C	Twelve-digit alphanumeric identifier assigned by EPA per the Resource Conservation and Recovery Act (RCRA). *Note: In RY 2005, TRI stopped collecting RCRA IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
45	RCRA NR F	C	Twelve-digit alphanumeric identifier assigned by EPA per the Resource Conservation and Recovery Act (RCRA). *Note: In RY 2005, TRI stopped collecting RCRA IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
46	RCRA NR G	C	Twelve-digit alphanumeric identifier assigned by EPA per the Resource Conservation and Recovery Act (RCRA). *Note: In RY 2005, TRI stopped collecting RCRA IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**

47	RCRA NR H	C	Twelve-digit alphanumeric identifier assigned by EPA per the Resource Conservation and Recovery Act (RCRA). *Note: In RY 2005, TRI stopped collecting RCRA IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
48	RCRA NR I	C	Twelve-digit alphanumeric identifier assigned by EPA per the Resource Conservation and Recovery Act (RCRA). *Note: In RY 2005, TRI stopped collecting RCRA IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
49	RCRA NR J	C	Twelve-digit alphanumeric identifier assigned by EPA per the Resource Conservation and Recovery Act (RCRA). *Note: In RY 2005, TRI stopped collecting RCRA IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
50	NPDES NR A	C	Nine-digit alphanumeric identifier assigned to a facility in EPA's National Pollutant Discharge Elimination System (NPDES). *Note: In RY 2005, TRI stopped collecting NPDES IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
51	NPDES NR B	C	Nine-digit alphanumeric identifier assigned to a facility in EPA's National Pollutant Discharge Elimination System (NPDES). *Note: In RY 2005, TRI stopped collecting NPDES IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
52	NPDES NR C	C	Nine-digit alphanumeric identifier assigned to a facility in EPA's National Pollutant Discharge Elimination System (NPDES). *Note: In RY 2005, TRI stopped collecting NPDES IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
53	NPDES NR D	C	Nine-digit alphanumeric identifier assigned to a facility in EPA's National Pollutant Discharge Elimination System (NPDES). *Note: In RY 2005, TRI stopped collecting NPDES IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
54	NPDES NR E	C	Nine-digit alphanumeric identifier assigned to a facility in EPA's National Pollutant Discharge Elimination System (NPDES). *Note: In RY 2005, TRI stopped collecting NPDES IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
55	NPDES NR F	C	Nine-digit alphanumeric identifier assigned to a facility in EPA's National Pollutant Discharge Elimination System (NPDES). *Note: In RY 2005, TRI stopped collecting NPDES IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
56	NPDES NR G	C	Nine-digit alphanumeric identifier assigned to a facility in EPA's National Pollutant Discharge Elimination System (NPDES). *Note: In RY 2005, TRI stopped collecting NPDES IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**

57	NPDES NR H	C	Nine-digit alphanumeric identifier assigned to a facility in EPA's National Pollutant Discharge Elimination System (NPDES). *Note: In RY 2005, TRI stopped collecting NPDES IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
58	NPDES NR I	C	Nine-digit alphanumeric identifier assigned to a facility in EPA's National Pollutant Discharge Elimination System (NPDES). *Note: In RY 2005, TRI stopped collecting NPDES IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
59	NPDES NR J	C	Nine-digit alphanumeric identifier assigned to a facility in EPA's National Pollutant Discharge Elimination System (NPDES). *Note: In RY 2005, TRI stopped collecting NPDES IDs on the Reporting Form R.* *Source:* **EPA's Facility Registry System**
60	PARENT COMPANY NAME	C	Name of the corporation or other business entity that controls the reporting facility. *Source:* **TRI_FACILITY.**PARENT_CO_ NAME *Reference:* Part I, Section 5.1
61	PARENT COMPANY D&B NR	C	Unique identification number assigned by Dun and Bradstreet to the parent company of the reporting facility. *Source:* **TRI_FACILITY.**PARENT_CO_DB_NUM *Reference:* Part I, Section 5.2
62	STANDARDIZED PARENT COMPANY NAME	C	A data field developed by EPA that is intended to best reflect the current ultimate U.S. parent company for the facility. *Source:* **TRI_FACILITY.**STANDARDIZED_PARENT_COMPANY *Reference:* Assigned by EPA
63	FRS FACILITY ID	C	Indicates the Facility Registry Service (FRS) ID for the TRI facility. The FRS is a centrally managed EPA database that identifies facilities, sites, or places subject to environmental regulations or of environmental interest. Using the FRS ID, data users can link data from different EPA programs together. *Source:* **TRI_FACILITY.EPA_**REGISTRY_ID
64	DOCUMENT CONTROL NUMBER	C	Unique identification number assigned to each submission by EPA. Format: TTYYNNNNNNNN, where: TT = document type YY = reporting year NNNNNNNNN= assigned number with a check digit *Source:* **TRI_REPORTING_FORM.**DOC_CTRL_NUM *Reference:* Assigned by EPA
65	CAS NUMBER	C	Unique numerical identifier assigned by the Chemical Abstracts Service to every chemical substance. *Note: CAS number 9999999999 is for sanitized trade secret submissions.* *Source:* **TRI_CHEM_INFO.**CAS_REGISTRY_NUMBER *Reference:* Part II, Section 1.1
66	TRI_CHEM_ID	C	TRI Chemical ID is an internal program number that uniquely identifies chemical or category codes (for compounds). The number is the same as the CAS number but with a different format (no dashes and left padded with zeroes for non-compounds). Format: 9999999999 (Chemicals) N999 (Compounds) *Note: I_CHEM_ID 9999999999 is sanitized for trade secret submissions.*

			Source: **TRI_REPORTING_FORM.**TRI_CHEM_ID *Reference:* Part II, Section 1.1
67	CHEMICAL NAME	C	Name of the chemical as listed on the TRI chemical list, or generic name, if the chemical is claimed as a trade secret. *Source:* **TRI_REPORTING_FORM**.CAS_CHEM_NAME *Reference:* Part II, Section 1.2 *or* Part II, Section 1.3
68	MIXTURE NAME	C	The generic term used in place of the chemical name when the supplier of the chemical is withholding the name of the TRI chemical or claiming that the chemical is a trade secret. This is generally used when the supplier of a chemical formulation wishes to keep the identity of a particular ingredient in the formulation a secret. It is only used when the supplier, not the reporting facility, is claiming the trade secret. The reporting facility will enter the chemical name as "Mixture", then supply this generic name to describe it. *Source:* **TRI_REPORTING_FORM.**MIXTURE_NAME *Reference:* Part II, Section 2.1
69	ELEMENTAL METAL INCLUDED	C	Flag indicating whether the facility submitted a combined reporting form for a metal compound and the corresponding elemental metal. This data element collected beginning with RY 2018. VALUES: YES = combined reporting form submitted for both an elemental metal and a metal compound containing the same elemental metal NO = only metal compound reported *Source:* **TRI_REPORTING_FORM.**ELEMENTAL_METAL_INCLUDED *Reference:* Part II, Section 1.2
70	CLASSIFICATION	C	Indicates the classification of the chemical. Chemicals can be classified as either a dioxin or dioxin-like compound, a Persistent, Bioaccumulative and Toxic chemical, or a general EPCRA Section 313 chemical. Values: {TRI, PBT, DIOXIN} where: TRI = General EPCRA Section 313 chemical PBT = Persistent, Bioaccumulative and Toxic DIOXIN = Dioxin or Dioxin-like compound *Source:* **TRI_CHEM_INFO.**CLASSIFICATION *Reference:* NONE
71	UNIT OF MEASURE	C	Indicates the unit of measure used to quantify the chemical. Dioxin and dioxin-like compounds are reported in grams, while all other TRI chemicals are reported in pounds. Values: {Pounds, Grams} *Source:* **TRI_CHEM_INFO.**UNIT_OF_MEASURE *Reference:* NONE
72	CAAC_IND	C	Flag indicating whether the TRI chemical is listed as a hazardous air pollutant under the Clean Air Act. Yes = CAAC No = non-CAAC See "Appendix B: Chemical Classifications – CAAC" for a list of TRI chemicals that are hazardous air pollutants under the Clean Air Act. *Source:* **TRI_CHEM_INFO.**CAAC_IND
73	CARC_IND	C	Flag indicating whether the chemical is classified as a carcinogen by the Occupational Safety and Health Administration (OSHA). Yes = CARC; No = non-CARC See "Appendix B: Chemical Classifications – Carcinogens" for a list of TRI chemicals classified as OSHA carcinogens. *Source:* **TRI_CHEM_INFO.**CARC_IND

74	PFAS_IND	C	Flag indicating whether the chemical is a per- and polyfluoroalkyl substance (PFAS). Yes = PFAS No = non-PFAS See "Appendix B: Chemical Classifications – PFAS" for a list of PFAS included on the TRI chemical list. *Source:* **TRI_CHEM_INFO.**PFAS_IND
75	METAL_IND	C	Flag indicating whether the chemical is a metal with TRI reporting restrictions. Yes = Metal with reporting restrictions No = TRI chemical without reporting restrictions See "Appendix B: Chemical Classifications – Metals" for a list of the metals on the TRI chemical list. *Source:* **TRI_CHEM_INFO.**Metal_Ind
76	REVISION CODE 1	C	If the facility revises its original TRI reporting form for a chemical, the facility indicates the reason using revision codes. This is an 'RR' followed by a single digit. This data element was collected beginning in RY 2007. Values: RR1 = New Monitoring Data RR2 = New Emission Factors RR3 = New Chemical Concentration Data RR4 = Recalculation(s) RR5 = Other Reason(s) *Source:* **TRI_REPORTING_FORM.**Revision_Code
77	REVISION CODE 2	C	If the facility revises its original TRI reporting form for a chemical, the facility indicates the reason using revision codes. This is an 'RR' followed by a single digit. This data element was collected beginning in RY 2007. Values: RR1 = New Monitoring Data RR2 = New Emission Factors RR3 = New Chemical Concentration Data RR4 = Recalculation(s) RR5 = Other Reason(s) *Source:* **TRI_REPORTING_FORM.**Revision_Code
78	DIOXIN DISTRIBUTION 1	N	Indicates the percentage of 1,2,3,4,6,7,8 Heptachlorodibenzofuran (CAS # 67562-39-4) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C: Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_1 *Reference:* Part II, Section 1.4
79	DIOXIN DISTRIBUTION 2	N	Indicates the percentage of 1,2,3,4,7,8,9 Heptachlorodibenzofuran (CAS # 55673-89-7) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_2 *Reference:* Part II, Section 1.4

80	DIOXIN DISTRIBUTION 3	N	Indicates the percentage of 1,2,3,4,7,8 Hexachlorodibenzofuran (CAS # 70648-26-9) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_3 *Reference:* Part II, Section 1.4
81	DIOXIN DISTRIBUTION 4	N	Indicates the percentage of 1,2,3,6,7,8 Hexachlorodibenzofuran (CAS # 57117-44-9) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_4 *Reference:* Part II, Section 1.4
82	DIOXIN DISTRIBUTION 5	N	Indicates the percentage of 1,2,3,7,8,9 Hexachlorodibenzofuran (CAS # 72918-21-9) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_5 *Reference:* Part II, Section 1.4
83	DIOXIN DISTRIBUTION 6	N	Indicates the percentage of 2,3,4,6,7,8 Hexachlorodibenzofuran (CAS # 60851-34-5) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_6 *Reference:* Part II, Section 1.4
84	DIOXIN DISTRIBUTION 7	N	Indicates the percentage of 1,2,3,4,7,8 Hexachlorodibenzo-p-dioxin (CAS # 39227-28-6) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_7 *Reference:* Part II, Section 1.4
85	DIOXIN DISTRIBUTION 8	N	Indicates the percentage of 1,2,3,6,7,8 Hexachlorodibenzo- p-dioxin (CAS # 5765385-7) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0. and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_8 *Reference:* Part II, Section 1.4

86	DIOXIN DISTRIBUTION 9	N	Indicates the percentage of 1,2,3,7,8,9 Hexachlorodibenzo-p-dioxin (CAS # 19408-74-3) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_9 *Reference:* Part II, Section 1.4
87	DIOXIN DISTRIBUTION 10	N	Indicates the percentage of 1,2,3,4,6,7,8 Heptachlorodibenzo- p-dioxin (CAS # 35822-46-9) in the reported dioxin or dioxin- like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_10 *Reference:* Part II, Section 1.4
88	DIOXIN DISTRIBUTION 11	N	Indicates the percentage of 1,2,3,4,6,7,8,9 Octachlorodibenzofuran (CAS # 39001-02-0) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_11 *Reference:* Part II, Section 1.4
89	DIOXIN DISTRIBUTION 12	N	Indicates the percentage of 1,2,3,4,6,7,8,9 Octachlorodibenzo- p-dioxin (CAS # 03268-87-9) in the reported dioxin or dioxin- like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_12 *Reference:* Part II, Section 1.4
90	DIOXIN DISTRIBUTION 13	N	Indicates the percentage of 1,2,3,7,8 Pentachlorodibenzofuran (CAS # 57117-41-6) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_13 *Reference:* Part II, Section 1.4
91	DIOXIN DISTRIBUTION 14	N	Indicates the percentage of 2,3,4,7,8 Pentachlorodibenzofuran (CAS # 57117-31-4) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_14 *Reference:* Part II, Section 1.4

92	DIOXIN DISTRIBUTION 15	N	Indicates the percentage of 1,2,3,7,8 Pentachlorodibenzo-p- dioxin (CAS # 40321-76-4) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_15 *Reference:* Part II, Section 1.4
93	DIOXIN DISTRIBUTION 16	N	Indicates the percentage of 2,3,7,8 Tetrachlorodibenzofuran (CAS # 51207-31-9) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_16 *Reference:* Part II, Section 1.4
94	DIOXIN DISTRIBUTION 17	N	Indicates the percentage of 2,3,78Tetrachlorodibenzo-p-dioxin (CAS # 01746-01-6) in the reported dioxin or dioxin-like compound. Values are either 0 or a number between 0 and 100 (inclusive). See "Appendix C – Dioxin and Dioxin-like Compounds Data" for details. *Note: This data element was collected from RY 2000 through 2007.* *Source:* **TRI_REPORTING_FORM.**DIOXIN_DISTRIBUTION_17 *Reference:* Part II, Section 1.4
95	QUANTITY RELEASED PRIOR YEAR	N	The total quantity of the chemical released on and off site during the **previous** year. *Note: In RY 2003, this data element was retired and replaced by the more detailed data elements in rows **99, 103, 107, and 111,** which show the divisions of on-site and off-site releases for the **previous** year.* *Source*: **TRI_SOURCE_REDUCT_QTY**.REL_PREV_YR_QTY *Reference*: Part II, Section 8.1 Col. A
96	QUANTITY RELEASED CURRENT YEAR	N	The total quantity of the chemical released on and off site during the **current** year. *Note: In RY 2003, this data element was retired and replaced by the more detailed data elements in rows **100, 104, 108, and 112,** which show the divisions of on-site and off-site releases for the **current** year.* *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_CURR_YR_QTY *Reference*: Part II, Section 8.1 Col. B
97	QUANTITY RELEASED FOLLOWING YEAR	N	Projected total quantity of the chemical released on and off site during the **following** year. *Note: In RY 2003, this data element was retired and replaced by the more detailed data elements in rows **101, 105, 109, and 113,** which show the divisions of on-site and off-site releases for the **following** year.* *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_FOLL_YR_QTY *Reference*: Part II, Section 8.1 Col. C

98	QUANTITY RELEASED SECOND- FOLLOWING YEAR	N	Projected total quantity of the chemical released on and off site during the **second following** year. *Note: In RY 2003, this data element was retired and replaced by the more detailed data elements in rows **102, 106, 110, and 114,** which show the divisions of on-site and off-site releases for the **second following** year.* *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_SECD_YR_QTY *Reference*: Part II, Section 8.1 Col. D
99	ON-SITE LIMITED RELEASES - PRIOR YEAR	N	Total quantity of on-site releases to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills in the **previous** year. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81a_PREV_YR_QTY *Reference*: Part II, Section 8.1a Col A.
100	ON-SITE LIMITED RELEASES – CURRENT YEAR	N	Total quantity of on-site releases to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills in the **current** year. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81a_CURR_YR_QTY *Reference*: Part II, Section 8.1a Col B.
101	ON-SITE LIMITED RELEASES – FOLLOWING YEAR	N	Projected total quantity of on-site releases to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills in the year **following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81a_FOLL_YR_QTY *Reference*: Part II, Section 8.1a Col C.
102	ON-SITE LIMITED RELEASES – SECOND-FOLLOWING YEAR	N	Projected total quantity of on-site releases to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills in the **second year** following the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81a_SECD_YR_QTY *Reference*: Part II, Section 8.1a Col D.
103	OTHER ON-SITE RELEASES – PRIOR YEAR	N	Total quantity of other on-site releases in the **previous** year. These include air emissions, surface water discharges, underground injections to Class II-V wells, land treatment/application farming, RCRCA Subtitle C surface impoundments and other surface impoundments and other disposal. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81b_PREV_YR_QTY *Reference*: Part II, Section 8.1b Col A.
104	OTHER ON-SITE RELEASES - CURRENT YEAR	N	Projected total quantity of other on-site releases in the current year. These include air emissions, surface water discharges, underground injections to Class II-V wells, land treatment/application farming, RCRCA Subtitle C surface impoundments and other surface impoundments and other disposal. *Source:* **TRI_SOURCE_REDUCT_QTY**.REL_81b_CURR_YR_QTY Reference: Part II, Section 8.1b Col B.
105	OTHER ON-SITE RELEASES - FOLLOWING YEAR	N	Projected total quantity of other on-site releases in the **following** year. These include air emissions, surface water discharges, underground injections to Class II-V wells, land treatment/application farming, RCRCA Subtitle C surface impoundments and other surface impoundments and other disposal. *Source:* **TRI_SOURCE_REDUCT_QTY**.REL_81b_FOLL_YR_QTY Reference: Part II, Section 8.1b Col C.

106	OTHER ON-SITE RELEASES – SECOND-FOLLOWING YEAR	N	Projected total quantity of other on-site releases in the **second following** year. These include air emissions, surface water discharges, underground injections to Class II-V wells, land treatment/application farming, RCRCA Subtitle C surface impoundments and other surface impoundments and other disposal. *Source:* **TRI_SOURCE_REDUCT_QTY**.REL_81b_SECD_YR_QTY Reference: Part II, Section 8.1b Col D.
107	OFF-SITE LIMITED RELEASES –PRIOR YEAR	N	Total quantity of off-site releases to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills in the **previous** year. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81c_PREV_YR_QTY *Reference*: Part II, Section 8.1c Col A.
108	OFF-SITE LIMITED RELEASES – CURRENT YEAR	N	Total quantity of off-site releases to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills in the **current** reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81c_CURR_YR_QTY *Reference*: Part II, Section 8.1c Col B.
109	OFF-SITE LIMITED RELEASES - FOLLOWING YEAR	N	Projected total quantity of off-site releases to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills in the year **following** the current reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81c_FOLL_YR_QTY *Reference*: Part II, Section 8.1c Col C.
110	OFF-SITE LIMITED RELEASES - SECOND-FOLLOWING YEAR	N	Projected total quantity of off-site releases to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills in the **second year following** the current reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81c_SECD_YR_QTY *Reference*: Part II, Section 8.1c Col D.
111	OTHER OFF-SITE RELEASES – PRIOR YEAR	N	Total quantity of other off-site releases in the **previous** year including Class II-V Underground Injection Wells, Surface Impoundments, Land Treatment, Other Land Disposal, Other Off-site Management, Transfers to Waste Brokers for Disposal and Unknown disposal. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81d_PREV_YR_QTY *Reference*: Part II, Section 8.1d Col A.
112	OTHER OFF-SITE RELEASES – CURRENT YEAR	N	Total quantity of other off-site releases in the **current** year including Class II-V Underground Injection Wells, Surface Impoundments, Land Treatment, Other Land Disposal, Other Off-site Management, Transfers to Waste Brokers for Disposal and Unknown disposal. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81d_CURR_YR_QTY *Reference*: Part II, Section 8.1d Col B.
113	OTHER OFF-SITE RELEASES – FOLLOWING YEAR	N	Projected total quantity of other off-site releases in the **following** year including Class II-V Underground Injection Wells, Surface Impoundments, Land Treatment, Other Land Disposal, Other Off-site Management, Transfers to Waste Brokers for Disposal and Unknown disposal. *Source*: **TRI_SOURCE_REDUCT_QTY.**REL_81d_FOLL_YR_QTY *Reference*: Part II, Section 8.1d Col C.

114	OTHER OFF-SITE RELEASES – SECOND-FOLLOWING YEAR	N	Projected total quantity of other off-site releases in **the second following** year including Class II-V Underground Injection Wells, Surface Impoundments, Land Treatment, Other Land Disposal, Other Off-site Management, Transfers to Waste Brokers for Disposal and Unknown disposal. *Source:* **TRI_SOURCE_REDUCT_QTY**.REL_81d_SECD_YR_QTY Reference: Part II, Section 8.1d Col D.
115	ENERGY RECOVERY ON SITE PRIOR YEAR	N	The total quantity of the toxic chemical used on site for energy recovery during the **previous** year. *Source*: **TRI_SOURCE_REDUCT_QTY.**ENERGY_ONSITE_PREV_YR_QTY *Reference*: Part II, Section 8.2A
116	ENERGY RECOVERY ON SITE CURRENT YEAR	N	The total quantity of the toxic chemical used on site for energy recovery during the **current** reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**ENERGY_ONSITE_CURR_YR_QTY *Reference*: Part II, Section 8.2B
117	ENERGY RECOVERY ON SITE FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be used on site for energy recovery in **the first year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**ENERGY_ONSITE_FOLL_YR_QTY *Reference*: Part II, Section 8.2C
118	ENERGY RECOVERY ON SITE SECOND-FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be used on site for energy recovery in the **second year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**ENERGY_ONSITE_SECD_YR_QTY Form R: Part II, Section 8.2D
119	ENERGY RECOVERY OFF SITE PRIOR YEAR	N	The total quantity of the toxic chemical sent off site for energy recovery during the **previous** year. *Source*: **TRI_SOURCE_REDUCT_QTY.**ENERGY_OFFSITE_PREV_YR_QTY *Reference*: Part II, Section 8.3A
120	ENERGY RECOVERY OFF SITE CURRENT YEAR	N	The total quantity of the toxic chemical sent off site for energy recovery during the **current** reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**ENERGY_OFFSITE_CURR_YR_QTY *Reference*: Part II, Section 8.3B
121	ENERGY RECOVERY OFF SITE FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be sent off site for energy recovery in the **first year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**ENERGY_OFFSITE_FOLL_YR_QTY *Reference*: Part II, Section 8.3C
122	ENERGY RECOVERY OFF SITE SECOND-FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be sent off site for energy recovery in the **second year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**ENERGY_OFFSITE_SECD_YR_QTY *Reference*: Part II, Section 8.3D
123	QUANTITY RECYCLED ON SITE PRIOR YEAR	N	The total quantity of the toxic chemical recycled on site during the **previous** year. *Source*: **TRI_SOURCE_REDUCT_QTY.**RECYC_ONSITE_PREV_YR_QTY *Reference*: Part II, Section 8.4A
124	QUANTITY RECYCLED ON SITE CURRENT YEAR	N	The total quantity of the toxic chemical recycled on site during the **current** reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**RECYC_ONSITE_CURR_YR_QTY *Reference*: Part II, Section 8.4B

125	QUANTITY RECYCLED ON SITE FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be recycled on site in **first year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**RECYC_ONSITE_FOLL_YR_QTY *Reference*: Part II, Section 8.4C
126	QUANTITY RECYCLED ON SITE SECOND-FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be recycled on site in the **second year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**RECYC_ONSITE_SECD_YR_QTY *Reference*: Part II, Section 8.4D
127	QUANTITY RECYCLED OFF SITE PRIOR YEAR	N	The total quantity of the toxic chemical sent off site for recycling during the **previous** year. *Source*: **TRI_SOURCE_REDUCT_QTY.**RECYC_OFFSITE_PREV_YR_QTY *Reference*: Part II, Section 8.5A
128	QUANTITY RECYCLED OFF SITE CURRENT YEAR	N	The total quantity of the toxic chemical sent off site for recycling during the **current** reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**RECYC_OFFSITE_CURR_YR_QTY *Reference*: Part II, Section 8.5B
129	QUANTITY RECYCLED OFF SITE FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be sent off site for recycling in the **first year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**RECYC_OFFSITE_FOLL_YR_QTY *Reference:* Part II, Section 8.5C
130	QUANTITY RECYCLED OFF SITE SECOND-FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be sent off site for energy recovery in the **second year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**RECYC_OFFSITE_PREV_YR_QTY *Reference*: Part II, Section 8.5D
131	QUANTITY TREATED ON SITE PRIOR YEAR	N	The total quantity of the toxic chemical treated on site during the **previous** year. *Source*: **TRI_SOURCE_REDUCT_QTY.**TREATED_ONSITE_PREV_YR_QTY *Reference*: Part II, Section 8.6A
132	QUANTITY TREATED ON SITE CURRENT YEAR	N	The total quantity of the toxic chemical treated on site during the **current** reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**TREATED_ONSITE_CURR_YR_QTY *Reference*: Part II, Section 8.6B
133	QUANTITY TREATED ON SITE FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be treated on site in the **first year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**TREATED_ONSITE_FOLL_YR_QTY *Reference*: Part II, Section 8.6C
134	QUANTITY TREATED ON SITE SECOND-FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be treated on site in the **second year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**TREATED_ONSITE_SECD_YR_QTY *Reference*: Part II, Section 8.6D
135	QUANTITY TREATED OFF SITE PRIOR YEAR	N	The total quantity of the toxic chemical sent off site for treatment (including transfers to POTWs) during the **previous** reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**TREATED_OFFSITE_PREV_YR_QTY *Reference*: Part II, Section 8.7A

136	QUANTITY TREATED OFF SITE CURRENT YEAR	N	The total quantity of the toxic chemical sent off site for treatment (including transfers to POTWs) during the **current** reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**TREATED_OFFSITE_CURR_YR_QTY *Reference*: Part II, Section 8.7B
137	QUANTITY TREATED OFF SITE FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be sent off site for treatment (including transfers to POTWs) in the **first year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**TREATED_OFFSITE_FOLL_YR_QTY *Reference*: Part II, Section 8.7C
138	QUANTITY TREATED OFF SITE SECOND-FOLLOWING YEAR	N	The total quantity of the toxic chemical projected to be sent off site for treatment (including transfers to POTWs) in the **second year following** the reporting year. *Source*: **TRI_SOURCE_REDUCT_QTY.**TREATED_OFFSITE_PREV_YR_QTY *Reference*: Part II, Section 8.7D
139	CATASTROPHIC RELEASES OR OTHER ONE-TIME EVENTS	N	The total quantity of the toxic chemical released into the environment or transferred off site due remedial actions, catastrophic events, or other one-time events not associated with routine production processes. *Source*: **TRI_REPORTING_FORM**.ONE_TIME_RELEASE_QTY *Reference*: Part II, Section 8.8
140	PROD RATIO/ACTIVITY INDEX	N	The ratio of production or activity in the reporting year divided by production or activity in the previous year. Activity index is based on a variable other than production that is the primary influence on the quantity of the reported TRI chemical. Field is in the format of +nnnn.nn. *Source*: **TRI_REPORTING_FORM**.PRODUCTION_RATIO *Reference*: Part II, Section 8.9
141	PROD_RATIO_OR_ACTIVITY	C	Indicates whether the value reported in Section 8.9 (see row #140) is a production ratio value or an activity index value. *Source:* **TRI_DESC_CODE**.DESCRIPTION *Reference:* Part II, Section 8.9
142	FIRST SOURCE REDUCTION ACTIVITY CODE	C	Code indicating the first type of source reduction activity implemented at the facility. Format is an "S" followed by two digits. Refer to Appendix D for a list of source reduction activity codes. *Note: "W codes" were used from RY 1991 to 2020.* *Source*: **TRI_SOURCE_REDUCT_METHOD**.SOURCE_REDUCT_ACTIVITY *Reference*: Part II, Section 8.10.1
143	FIRST SOURCE REDUCTION ACTIVITY DESCRIPTION	C	A text description of the preceding source reduction activity code. *Source*: **TRI_CODE_DESC**.DESCRIPTION *Reference:* Part II, Section 8.10.1
144	FIRST SOURCE REDUCTION ACTIVITY ID METHOD – CODE 1	C	First code reported by the facility to describe the method used (e.g., internal audit) to identify the first source reduction activity implemented. Facilities may specify up to three identification method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a current list of codes for methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**.

			SOURCE_REDUCT_METHOD_1 *Reference*: Part II, Section 8.10.1a
145	FIRST SOURCE REDUCTION ACTIVITY ID METHOD - CODE 1 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference*: Part II, Section 8.10.1a
146	FIRST SOURCE REDUCTION ACTIVITY ID METHOD – CODE 2	C	Second code reported by the facility to describe the method used (e.g., internal audit) to identify the first source reduction activity implemented. Facilities may specify up to three method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a list of codes on methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**. SOURCE_REDUCT_METHOD_2 *Reference*: Part II, Section 8.10.1b
147	FIRST SOURCE REDUCTION ACTIVITY ID METHOD - CODE 2 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference:* Part II, Section 8.10.1b
148	FIRST SOURCE REDUCTION ACTIVITY ID METHOD – CODE 3	C	Third code reported by the facility to describe the method used (e.g., internal audit) to identify the first source reduction activity implemented. Facilities may specify up to three method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a list of codes on methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**. SOURCE_REDUCT_METHOD_3 *Reference*: Part II, Section 8.10.1c
149	FIRST SOURCE REDUCTION ACTIVITY ID METHOD - CODE 3 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference*: Part II, Section 8.10.1c
150	EST ANNUAL REDUCTION - FIRST SOURCE REDUCTION ACTIVITY 1– CODE	C	Facilities may opt to provide an estimate of the resulting/expected reduction in the annual amount of the chemical managed as waste due to implementation of the first source reduction activity. This is an "R" followed by one digit. Reporting of this data element began in reporting year 2014. Refer to Appendix F for a list of estimated annual reduction codes. *Source:* **TRI_SOURCE_REDUCT_METHOD.**EST_ANNUAL_REDUCT *Reference:* Part II, Section 8.10.1d
151	EST ANNUAL REDUCTION – FIRST SOURCE REDUCTION ACTIVITY – CODE DESCRIPTION	C	Description of the preceding Estimated Annual Reduction code. A facility can enter one of six range codes. *Source:* **TRI_DESC_CODE**.DESCRIPTION *Reference:* Part II, Section 8.10.1d

152	SOURCE REDUCTION ACTIVITY CODE 2	C	Code indicating the second type of source reduction activity implemented at the facility. Format is an "S" followed by two digits. Refer to Appendix D for a list of source reduction activity codes. *Note: "W codes" were used from RY 1991 to 2020.* *Source*: **TRI_SOURCE_REDUCT_METHOD**.SOURCE_REDUCT_ACTIVITY *Reference*: Part II, Section 8.10.2
153	SECOND SOURCE REDUCTION ACTIVITY DESCRIPTION	C	A text description of the preceding source reduction activity code. *Source*: **TRI_CODE_DESC**.DESCRIPTION *Reference*: Part II, Section 8.10.2
154	METHOD USED TO ID SOURCE REDUCTION ACTIVITY 2 – CODE 1	C	First code reported by the facility to describe the method used (e.g., internal audit) to identify the second source reduction activity implemented. Facilities may specify up to three identification method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a current list of codes for methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**. SOURCE_REDUCT_METHOD_1 *Reference*: Part II, Section 8.10.2.a
155	SECOND SOURCE REDUCTION ACTIVITY ID METHOD - CODE 1 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference*: Part II, Section 8.10.2.a
156	METHOD USED TO ID SOURCE REDUCTION ACTIVITY 2 – CODE 2	C	Second code reported by the facility to describe the method used (e.g., internal audit) to identify the second source reduction activity implemented. Facilities may specify up to three identification method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a current list of codes for methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**.SOURCE_REDUCT_METHOD_2 *Reference*: Part II, Section 8.10.2b
157	SECOND SOURCE REDUCTION ACTIVITY ID METHOD - CODE 2 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference*: Part II, Section 8.10.2b
158	METHOD USED TO ID SOURCE REDUCTION ACTIVITY 2 – CODE 3	C	Third code reported by the facility to describe the method used (e.g., internal audit) to identify the second source reduction activity implemented. Facilities may specify up to three identification method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a current list of codes for methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**.SOURCE_REDUCT_METHOD_3 *Reference*: Part II, Section 8.10.2.
159	SECOND SOURCE REDUCTION ACTIVITY ID METHOD - CODE 3 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference*: Part II, Section 8.10.2.c

160	EST ANNUAL REDUCTION CODE –SOURCE REDUCTION ACTIVITY 2	C	Facilities may opt to provide an estimate of the resulting/expected reduction in the annual amount of the chemical managed as waste due to implementation of the second source reduction activity. This is an "R" followed by one digit. Reporting of this data element began in reporting year 2014. Refer to Appendix F for a list of estimated annual reduction codes. *Source:* **TRI_SOURCE_REDUCT_METHOD.**EST_ANNUAL_REDUCT *Reference:* Part II, Section 8.10.2d
161	EST ANNUAL REDUCTION - SECOND SOURCE REDUCTION ACTIVITY – CODE DESCRIPTION	C	Description of the preceding Estimated Annual Reduction code. A facility can enter one of six ranges codes. *Source:* **TRI_DESC_CODE**.DESCRIPTION *Reference:* Part II, Section 8.10.2d
162	SOURCE REDUCTION ACTIVITY CODE 3	C	Code indicating the third type of source reduction activity implemented at the facility. Format is an "S" followed by two digits. Refer to Appendix D for a list of source reduction activity codes. *Note: "W codes" were used from RY 1991 to 2020.* *Source*: **TRI_SOURCE_REDUCT_METHOD**. SOURCE_REDUCT_ACTIVITY *Reference*: Part II, Section 8.10.3
163	THIRD SOURCE REDUCTION ACTIVITY DESCRIPTION	C	A text description of the preceding source reduction activity code. *Source*: **TRI_CODE_DESC**.DESCRIPTION *Reference*: Part II, Section 8.10.3
164	METHOD USED TO ID SOURCE REDUCTION ACTIVITY 3 – CODE 1	C	First code reported by the facility to describe the method used (e.g., internal audit) to identify the third source reduction activity implemented. Facilities may specify up to three identification method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a current list of codes for methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**.SOURCE_REDUCT_METHOD_1 *Reference*: Part II, Section 8.10.3a
165	THIRD SOURCE REDUCTION ACTIVITY ID METHOD – CODE 1 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference*: Part II, Section 8.10.3a
166	METHOD USED TO ID SOURCE REDUCTION ACTIVITY 3 – CODE 2	C	Second code reported by the facility to describe the method used (e.g., internal audit) to identify the third source reduction activity implemented. Facilities may specify up to three identification method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a current list of codes for methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**. SOURCE_REDUCT_METHOD_2 *Reference*: Part II, Section 8.10.3b
167	THIRD SOURCE REDUCTION ACTIVITY ID METHOD – CODE 2 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference*: Part II, Section 8.10.3b

168	METHOD USED TO ID SOURCE REDUCTION ACTIVITY 3 – CODE 3	C	Third code reported by the facility to describe the method used (e.g., internal audit) to identify the third source reduction activity implemented. Facilities may specify up to three identification method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a current list of codes for methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**.SOURCE_REDUCT_METHOD_3 *Reference*: Part II, Section 8.10.3c
169	THIRD SOURCE REDUCTION ACTIVITY ID METHOD – CODE 3 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference*: Part II, Section 8.10.3c
170	EST ANNUAL REDUCTION CODE – SOURCE REDUCTION ACTIVITY 3	C	Facilities may opt to provide an estimate of the resulting/expected reduction in the annual amount of the chemical managed as waste due to implementation of the third source reduction activity. This is an "R" followed by one digit. Reporting of this data element began in reporting year 2014. Refer to Appendix F for a list of estimated annual reduction codes. *Source:* **TRI_SOURCE_REDUCT_METHOD.**EST_ANNUAL_REDUCT *Reference:* Part II, Section 8.10.3d
171	EST ANNUAL REDUCTION – THIRD SOURCE REDUCTION ACTIVITY – CODE DESCRIPTION	C	Description of the preceding Estimated Annual Reduction code. A facility can enter one of six ranges codes. *Source:* **TRI_DESC_CODE**.DESCRIPTION *Reference:* Part II, Section 8.10.3d
172	SOURCE REDUCTION ACTIVITY CODE 4	C	Code indicating the fourth type of source reduction activity implemented at the facility. Format is an "S" followed by two digits. Refer to Appendix D for a list of source reduction activity codes. *Note: "W codes" were used from RY 1991 to 2020.* *Source*: **TRI_SOURCE_REDUCT_METHOD**. SOURCE_REDUCT_ACTIVITY *Reference*: Part II, Section 8.10.4
173	FOURTH SOURCE REDUCTION ACTIVITY DESCRIPTION	C	A text description of the preceding source reduction activity code. *Source*: **TRI_CODE_DESC**.DESCRIPTION *Reference*: Part II, Section 8.10.4
174	METHOD USED TO ID SOURCE REDUCTION ACTIVITY 4 – CODE 1	C	First code reported by the facility to describe the method used (e.g., internal audit) to identify the fourth source reduction activity implemented. Facilities may specify up to three identification method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a current list of codes for methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**. SOURCE_REDUCT_METHOD_1 *Reference*: Part II, Section 8.10.4a
175	FOURTH SOURCE REDUCTION ACTIVITY ID METHOD – CODE 1 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference*: Part II, Section 8.10.4a

176	METHOD USED TO ID SOURCE REDUCTION ACTIVITY 4 – CODE 2	C	Second code reported by the facility to describe the method used (e.g., internal audit) to identify the fourth source reduction activity implemented. Facilities may specify up to three identification method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a current list of codes for methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**. SOURCE_REDUCT_METHOD_2 *Reference:* Part II, Section 8.10.4b
177	FOURTH SOURCE REDUCTION ACTIVITY ID METHOD – CODE 2 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference:* Part II, Section 8.10.4b
178	METHOD USED TO ID SOURCE REDUCTION ACTIVITY 4 – CODE 3	C	Third code reported by the facility to describe the method used (e.g., internal audit) to identify the fourth source reduction activity implemented. Facilities may specify up to three identification method codes for each source reduction activity. Format is a "T" followed by two digits. Refer to Appendix E for a current list of codes for methods used to identify source reduction activities. *Source*: **TRI_SOURCE_REDUCT_METHOD**. SOURCE_REDUCT_METHOD_3 *Reference*: Part II, Section 8.10.4c
179	FOURTH SOURCE REDUCTION ACTIVITY ID METHOD – CODE 3 DESCRIPTION	C	A text description of the preceding source reduction activity identification method code. *Source*: **TRI_DESC_CODE.**DESCRIPTION *Reference*: Part II, Section 8.10.4c
180	EST ANNUAL REDUCTION CODE –SOURCE REDUCTION ACTIVITY 4	C	Facilities may opt to provide an estimate of the resulting/expected reduction in the annual amount of the chemical managed as waste due to implementation of the fourth source reduction activity. This is an "R" followed by one digit. Reporting of this data element began in reporting year 2014. Refer to Appendix F for a list of estimated annual reduction codes. *Source:* **TRI_SOURCE_REDUCT_METHOD.**EST_ANNUAL_REDUCT *Reference:* Part II, Section 8.10.4d
181	EST ANNUAL REDUCTION – FOURTH SOURCE REDUCTION ACTIVITY-CODE DESCRIPTION	C	Description of the preceding Estimated Annual Reduction code. A facility can enter one of six ranges codes. *Source:* **TRI_DESC_CODE**.DESCRIPTION *Reference:* Part II, Section 8.10.4d

APPENDIX A: NAICS Code Assignments

Until RY 2006, the TRI Program used Standard Industrial Codes (SIC) to identify each reporting facility's industry sector. In RY 2006, the TRI Program began using North American Industry Classification System (NAICS) codes.

To allow for analysis of data across years, the TRI Program assigned NAICS codes to each TRI submission from 1987 through 2005. The six methods used to assign NAICS codes and the number and percentages of assignments per method are shown in the table below. The "Order of Precedence" column indicates the order in which the methods were used to make an assignment.

Method	Order of Precedence	Number of NAICS Codes Assigned via Method (in Thousands)	Percentage Per Method
Reported Data Used	1	821K	50%
SIC to NAICS Crosswalk	2	478K	29%
EPA Facility Registry System (FRS)	3	190K	11%
Commercial Sources	4	113K	7%
Statistics	5	51K	3%
Other Methods	6	2K	Less than 1 %

- Reported Data Used: This method was used to assign 50% of all NAICS codes. In this method, the primary NAICS code reported by each facility in RY 2006 was used to make an assignment to chemical submissions (Form Rs and Form As) for years 1987 to 2005. This method was only used under the following conditions:
  1. The RY 2006 chemical submitted had only one primary NAICS code reported
  2. The prior year submission(s) for the same chemical had only one primary SIC code consistently reported
  3. The SIC to NAICS Crosswalk (obtained for the U.S. Census Bureau) showed a one-to-one match between the reported SIC and NAICS codes
- This SIC to NAICS Crosswalk: In this method, the TRI Program used a crosswalk or lookup table that translated SIC codes into NAICS codes to assign a primary NAICS code to a pre-2006 TRI chemical submission. The primary SIC code reported on the TRI form was used to lookup the corresponding NAICS code. Not all SIC codes translated into only one NAICS code, so it was not possible to use this method to assign a NAICS code to each chemical submission. However, it was used to make 29% of all the assignments.
- EPA Facility Registry System (FRS): In this method, the TRI Program used NAICS codes found in EPA's Facility Registry System (FRS) to assign a primary NAICS code to each TRI chemical submission. This method was only used if FRS listed only one primary NAICS code for a facility. 11% of all assignments were made using this method.
- Commercial Sources: This method involved using various commercial services to verify NAICS code assignments. 7% of all assignments were made using this method.
- Statistics: For 3% of NAICS code assignments, the TRI Program used various statistical methods based on past and present data.

- Other Methods: Manual research (e.g., using Internet searches and other government agencies' data) and personally contacting facilities helped the TRI Program assign NAICS codes to approximately 2,000 TRI submissions.

Appendix B: Chemical Classifications

TRI Chemicals Classified as Hazardous Air Pollutants Under the Clean Air Act:

- https://www.epa.gov/epcra/consolidated-list-lists-under-epcracerclacaa-ss112r-april-2022-version

TRI Chemicals Classified as OSHA Carcinogens:

- www.epa.gov/sites/default/files/2019-11/documents/osha_carcinogen_basis_november_2019_update.pdf

TRI Chemicals Classified as Metals:

- https://ordspub.epa.gov/ords/guideme_ext/f?p=guideme:chemical-list-advanced-search:0

TRI Chemicals Classified as per- and polyfluoroalkyl substances (PFAS):

- www.epa.gov/toxics-release-inventory-tri-program/list-pfas-added-tri-ndaa

TRI Chemicals Classified as **Persistent Bioaccumulative Toxic Chemicals (PBTs):**

- www.epa.gov/toxics-release-inventory-tri-program/persistent-bioaccumulative-toxic-pbt-chemicals-covered-tri

APPENDIX C: Dioxin and Dioxin-like Compound Data

In reporting year (RY) 2000, the TRI Program began collecting congener data for dioxin and dioxin-like compounds to better convey the relative toxicity of these chemicals being released or managed at facilities. From RY 2000 through 2007, Part II, Section 1.4 of the Reporting Form R asked facilities to specify the percentages of the 17 individual chemicals that make up a dioxin or dioxin-like compound for all release types (air, water, and land). The 17 fields labeled "dioxin distribution" in each of the Basic Plus files should contain those reported percentages.

In RY 2008, the TRI Program improved collection of dioxin and dioxin-like compounds data by introducing the Form R Schedule One. This supplemental form allows facilities to report quantities of each of the 17 dioxin congeners.

Although useful, total releases are not the best measure of the actual toxicity of dioxin and dioxin-like compounds because each compound has its own level of toxicity. Both the original reporting of dioxin and dioxin-like congeners and the Form R Schedule One reporting allowed the TRI Program to calculate Toxic Equivalency (TEQ) values for each facility's dioxin releases. TEQs are a weighted quantity measure based on the toxicity of each member of the dioxin and dioxin-like compounds category relative to the most toxic members of the category. The values allow for comparison of the toxicity of different combinations of dioxins and dioxin-like compounds and help explain the relative toxicity of the TRI chemical release information.

For more information about dioxin and dioxin-like chemical reporting and the calculation of TEQs, see https://www.epa.gov/toxics-release-inventory-tri-program/dioxin-and-dioxin-compounds-toxic-equivalency-information. To download dioxin data from the Form R Schedule One, visit https://www.epa.gov/toxics-release-inventory-tri-program/tri-dioxin-and-dioxin-compounds-and-teq-data-files-calendar.

Appendix D: Source Reduction Activity Codes

Material Substitutions and Modifications refer to changing input purity or dimensions, or replacing a raw material, feedstock, reagent, or other substance with environmentally preferable alternatives.

S01 Substituted a fuel
S02 Substituted an organic solvent
S03 Substituted raw materials, feedstock, or reactant chemical
S04 Substituted manufacturing aid, processing aid, or other ancillary chemical
S05 Modified content, grade, or purity of a chemical input
S06 Other material modifications made

Product Modifications refer to changing the end product through design, composition, formulation, or packaging changes, as well as full final product replacements that reduce the generation of waste.

S11 Reformulated or developed new product line
S12 Altered dimensions, components, or final design of product
S13 Modified product packaging
S14 Other product modifications made

Process and Equipment Modifications refer to improvements to industrial processes and/or associated equipment including implementation of new processes that produce less waste, direct reuse of chemicals, or technological changes impacting synthesis, formulation, fabrication, and assembly, and surface treatment such as cleaning, degreasing, surface preparation, and finishing.

S21 Optimized process conditions to increase efficiency
S22 Instituted recirculation within a process
S23 Implemented new technology, technique, or process
S24 Modified or updated equipment or layout
S25 Other process modifications made

Inventory and Material Management refers to improvements in procurement, inventory tracking, preventative monitoring, and storage and handling of chemicals and materials as they move through a facility to optimize their use and prevent spills and leaks during operation.

S31 Instituted better labeling, testing, or other inventory management practices
S32 Changed size or type of containers procured
S33 Improved containment or material handling operations
S34 Improved monitoring practices of potential spill or leak sources
S35 Other improvements to inventory and material management

Operating Practices and Training refers to improvements in maintenance, production scheduling, process monitoring, and other practices that enhance operator expertise and housekeeping measures that eliminate or minimize waste.

S41 Improved scheduling, record keeping, or procedures for operations, cleaning, and maintenance
S42 Changed production schedule to minimize equipment and material changeovers
S43 Introduced in-line product quality monitoring or other process analysis system
S44 Other improvements to operating practices or operator training

Appendix E: Source Reduction Activity Identification Method Codes

Facilities explore source reduction opportunities through a variety of methods. Methods include, for example, the use of materials balance audits, employee recommendation, and vendor assistance to identify reduction opportunities. For each source reduction activity reported, you must select the method (T codes) used to identify the source reduction activity.

Method to Identify Source Reduction Activity Codes

T01 Internal pollution prevention opportunity audit(s)
T02 External pollution prevention opportunity audit(s)
T03 Materials balance audits
T04 Participative team management
T05 Employee recommendation (independent of a formal company program)
T06 Employee recommendation (under a formal company program)
T07 State government technical assistance program
T08 Federal government technical assistance program
T09 Trade association/industry technical assistance program
T10 Vendor assistance
T11 Other

Appendix F

Estimated Annual Reduction Range Codes

R1 = 100% (elimination of the chemical)
R2 = greater than or equal to 50%, but less than 100%
R3 = greater than or equal to 25%, but less than 50%
R4 = greater than or equal to 15%, but less than 25%
R5 = greater than or equal to 5%, but less than 15%
R6 = greater than 0%, but less than 5%