



MUST-READ TIPS FOR YOUR TRI REPORTING



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Trinity reviewed all 900 TRI Q&As from EPA's GuideME database. We summarized our favorites, focusing on commonly misunderstood TRI concepts and landmines to avoid in your report each year.

EPA's online [GuideME](#) program includes numerous Toxics Release Inventory (TRI) guidance documents, including chemical-specific guidance, industry-specific guidance, and exemptions, among other guidance. One of the most valuable is EPA's database of [TRI Questions and Answers \(Q&As\)](#), where EPA has responded to 990 TRI questions dating back to the first TRI report in 1987.

Trinity's TRI experts examined all 990 Q&As and summarized our favorites for easy review.

Are FDA-Regulated Materials Exempt from TRI Reporting? (Q39)

There is no exemption from TRI Reporting for materials or chemicals that are regulated by the Food & Drug Administration (FDA). EPA Tier II Reporting has an FDA exemption; however, TRI reporting does not.

Who is Required to File the TRI Report for Change in Ownerships? (Q89)

The owner/operator of a facility on the annual July 1 reporting deadline has primary responsibility for filing the TRI report for the previous year. However, any prior owner/operator of the facility can be held liable. All reports submitted must cover the full reporting year, regardless of when a new owner/operator takes over.

How Should You Calculate Concentrations in Mixtures with Ranges from 0% to X%? (Q178)

If a Safety Data Sheet (SDS) provides a concentration range for a TRI chemical that lists 0% as the minimum concentration and a non-zero value for the maximum concentration, then the facility must use the non-zero maximum concentration as the estimated concentration of the TRI chemical when calculating the amount of the TRI chemical in the mixture. EPA's guidance states that if the SDS shows 0% as the lower bound of the concentration range, then the lower bound concentration is unknown (and therefore, cannot be used when calculating the concentration).

What are TRI Reporting Requirements for Diesel, Gasoline, and Fuel Oils? (Q188)

Diesel, gasoline, and other fuel oils commonly contain TRI chemicals. These TRI chemicals may meet the definition of "processing" and/or "otherwise use" based on the fueling activities occurring at your site. Additionally, the combustion of fuels results in the "manufacturing" of TRI chemicals. Common examples of manufacturing, processing, and otherwise using TRI chemicals present in fuels include:

- ▶ Manufacturing – generating combustion byproducts via combustion
- ▶ Processing – preparing fuels for distribution into commerce (e.g., adding fuel to products that are distributed into commerce)
- ▶ Otherwise Use – using the fuel on-site for non-exempt activities (e.g., fueling a boiler)

EPA recommends using the following resources for estimating concentrations and releases of TRI chemicals present in fuels:

- ▶ Estimated concentrations of toxic chemical constituents in crude oil and various petroleum products:
 - Table 3-4 of the [Electricity Generating Facilities EPCRA section 313 Industry Guidance](#)
 - Table 2-2 of the [Guidance for Reporting Toxic Chemicals: Polycyclic Aromatic Compounds Category](#)
 - Table 4-8 of the [Guidance for Reporting Releases and Other Waste Management Quantities of Toxic Chemicals: Lead and Lead Compounds](#)

- ▶ Estimated quantities of certain toxic chemicals manufactured as a result of fuel combustion:
 - Tables 3-8, 3-9, and 3-11 in the [Electricity Generating Facilities Guidance](#)
 - Table 2-3 of the [Polycyclic Aromatic Compounds Guidance](#)
- ▶ Additional toxic chemical emissions estimates from fuel combustion are provided in the [Compilation of Air Pollutant Emissions Factors \(AP 42\)](#) and other resources available through EPA's [Clearing House for Inventories and Emissions Factors](#)

Is Placing Waste in Drums for Off-Site Recycling Considered “Repackaging?” (Q288)

The act of removing a waste stream from a production line that contains a TRI chemical and placing this waste in a drum for shipment off-site to a recycling facility is considered “repackaging” the TRI chemical. Therefore, this activity is subject to the processing threshold. Also, “processing” and “repackaging” should be selected in Section 3.2 of the Form R for these reportable chemicals.



Are TRI Chemicals Not Incorporated into Products Considered “Otherwise Used?” (Q269 & Q270)

TRI chemicals applied to products that are not incorporated into the final product are considered “otherwise used” and are subject to the lower applicability threshold of 10,000 lbs. A common example includes painting or cleaning activities, where a TRI chemical-containing material is applied to a product but the TRI chemical either fully evaporates or partially evaporates. In this scenario, the TRI chemicals are considered “otherwise used,” as the chemicals were involved in a specific non-incorporative activity (as a volatile component of the painting or cleaning materials).

Does Use of a Broker Negate Potential Import Applicability Considerations? (Q300)

For the purposes of TRI applicability determinations, a facility is considered an “importer” (included under the definition of “manufacturing” for TRI applicability purposes) of a TRI chemical if it has caused the listed toxic chemical to be brought into U.S. customs territory and if it controls the identity of the toxic chemical and the amount imported. Using a broker to facilitate the importation process does not relieve the facility from the requirement to complete TRI applicability determinations for these chemicals.

How Does “RCRA Empty” Differ From “EPCRA Empty?” (Q393)

Although an empty container may meet the definition of the Resource Conservation & Recovery Act’s empty container (commonly referred to as “RCRA Empty”) under hazardous waste regulations, the container residue is still reportable as a release under the TRI program if the residue contains TRI chemicals. This emphasizes the need for understanding how TRI-containing materials are received (i.e., container types) and where “empty” containers are sent after the materials are used at the facility.

How Should You Calculate “Straddling” De Minimis Concentrations? (Q417 & Q418)

Only the amount of a listed toxic chemical in a mixture that is above the de minimis concentration is counted towards the threshold for TRI applicability purposes. This creates a unique challenge for materials that list TRI chemicals in concentration ranges that “straddle” the de minimis concentration, as the amount of the TRI chemical below the de minimis concentration is exempt. EPA provides a practical example to help illustrate how to calculate the amount in the mixture that is not exempt:

Assume that a facility manufactures 10 million pounds of a mixture containing 0.25–1.20 percent of a toxic chemical that is subject to a 1 percent de minimis level. The quantity of the mixture subject to reporting is:

$$(10,000,000 \text{ lb} \times (1.20 - 0.99)) / (1.20 - 0.25) = 2,210,526 \text{ lb non-exempt mixture}$$

This 2,210,526 pounds of non-exempt mixture is multiplied by the average concentration above the de minimis, which is 1.1 percent, or

$$(1.20 + 1.00)/2 = 1.1\%$$

$$2,210,526 \text{ lb} \times 0.011 = 24,316 \text{ lb}$$

In this example, the amount of chemical that counts toward a threshold is 24,316 pounds.

Are Facilities Required to Report Releases and Off-Site Transfers for Exempt Activities? (Q428)

Facilities are not required to report releases or waste management activities from exempt activities, even if the facility triggers reporting for the TRI chemical from non-exempt activities. For example, if the facility otherwise uses toluene in a concentration that is below the de minimis level and uses toluene in another raw material that is above the de minimis level (and reporting thresholds), the facility is only required to report the releases and waste management activities from the non-exempt use.

What is the Policy for Article Exemption When Releases Exceed 0.5 lbs? (Q440, Q447, Q454, Q458, Q464)

The article exemption cannot be claimed if the sum of all amounts released during processing or otherwise use of all like items over the entire reporting year exceeds 0.5 lbs. If the listed toxic chemical is completely recycled/reused either on-site or off-site, then the item may still maintain its status as an article and the recycling/reuse activity does not count towards the 0.5 lbs threshold. If an article loses the article exemption for one TRI chemical due to releases exceeding 0.5 lbs in a given reporting year, then the article loses the exemption for all TRI chemicals in the article, regardless of whether the releases of the other TRI chemicals is 0.5 lbs or less.

Is There a De Minimis Exemption for Concentrated Materials? (Q491)

If a facility concentrates a TRI chemical in a mixture above the de minimis level, then the de minimis exemption can no longer be claimed. EPA specifies that, “for purposes of threshold determinations and releases and other waste management calculations, the facility would account for a listed toxic chemical from the first point in the process in which the concentration of the toxic chemical meets or exceeds the applicable de minimis level for that toxic chemical, in the process mixture.”

How Should Elemental Metal vs. Metal Compounds Be Reported? (Q516)

If a facility triggers TRI reporting for an elemental metal (e.g., lead), but not the associated metal compound (e.g., lead compounds), then the facility is only required to report the releases and waste management activities associated with the reportable chemical (in this example, elemental metal).



How to Handle Sampling Results Below the Detection Level? (Q578)

Sampling results that are below the detection level do not automatically imply that the releases associated with the sampling point should be reported as “not applicable.” Facilities are required to use reasonable judgement to determine if the toxic chemical is believed to be present. If the chemical is believed to be present, then the facility should use half the detection limit as the concentration in release calculations.

When Do You Report “N/A” vs. “0 lbs” Released? (Q625)

Even if a facility did not have any known accidental spills or releases to land of a TRI chemical, if there was a possibility that a release could have occurred to land, then the release to land under Section 5.5.4 (other disposal to land on-site)

should be reported as “0 lbs” rather than “N/A.” Reporting “N/A” is only appropriate when there is no possibility that a release could have occurred to a specific media or off-site location.

What are the Requirements for Temporary Storage Piles and On-Site Release Reporting? (Q662 & Q664)

Facilities must report TRI chemicals that are placed in on-site storage piles as releases to land on-site, unless the chemicals are transferred off-site in the same reporting year. EPA specifies that “temporary storage” of a TRI chemical in an on-site pile is not required to be reported as a release; however, to meet the “temporary storage” criteria, the TRI-containing material must be transferred off-site in the same reporting year as the material is placed in the pile. EPA also states that if the material is transferred off-site in an ensuing year, then this transfer would be reported as an off-site transfer on the following year’s TRI report assuming the TRI chemical(s) trigger reporting. Placing the material on a concrete pad does not change this interpretation.

What Must Be Considered in the “Maximum On-Site” Calculation? (Q789)

When calculating the maximum amount of a TRI chemical on-site, facilities must consider the maximum on-site at any one time. This calculation includes consideration of raw materials, in process materials, product inventory, and quantities present in wastes -- making this a complicated value to calculate.

What Supporting Data is Needed for Electronic vs. Hard Copy Recordkeeping? (Q797)

Electronic data entered to a spreadsheet for TRI calculation purposes should have supporting documentation (either hard-copy or electronic) that documents the source of the data to help prevent the loss or erroneous entry (e.g., inadvertently replacing a value in the spreadsheet) of pertinent information. For electronic recordkeeping, EPA recommends employing “adequate safeguards” to prevent changes to data after the data have been scanned to be stored electronically.

How is the De Minimis Exemption Evaluated for Multiple Metal Compounds in Mixtures? (Q870)

If a material contains multiple types of a metal compounds that have the same parent metal (e.g., three different manganese compounds in the same raw material), then the total concentration for the purposes of evaluating the de minimis exemption (and associated supplier notifications) is equal to the sum of all the different metal compounds falling under the same metal compound category. For example, a raw material may have three different manganese compounds present, each below the de minimis level individually; however, the total concentration of the three different manganese compounds combined is the value that must be compared to the de minimis concentration for applicability purposes.

What are the Reporting Requirements for Scrap Metal Reuse vs. Recycling? (Q988)

Directly “reusing” scrap metal, whether on-site or off-site, without any reclamation or recovery steps prior to the reuse is not reportable under TRI. Similarly, if contaminants are not removed during a melting process where scrap metal is being reused, then this is not reportable. However, “recycling” scrap metal is reportable under TRI, and this includes “changing the relative amounts of the chemicals in an alloy (which may occur when mixed scrap metal is melted together).” This can be challenging to determine as facilities may not have direct knowledge of how their scrap metal is being used, especially if the scrap metal is sent through a broker. EPA recognizes this, stating that “facilities should use their best readily available information in determining if the scrap sent off-site is being directly reused or instead is recycled because of an intervening reclamation or recovery step prior to reuse.”

The Trinity team reviewed all 990 TRI Q&As and ultimately hand-picked these topics as key to assist you in completing your TRI applicability assessments and release calculations.

For more information or for assistance, please contact Trinity Consultants at [800.229.6655](tel:800.229.6655) or visit trinityconsultants.com.