

What is Trichloroethylene (TCE)?

Trichloroethylene (CASRN 79-01-6) – also called TCE – is a nonflammable, colorless liquid and a volatile chemical with a somewhat sweet odor. TCE is used in a variety of industrial, commercial, and consumer applications including in industrial cleaning and degreasing, lubricants, adhesives and sealants, paints and coatings, automotive care products, cleaning and furniture care products, and other miscellaneous products.

In December 2024, EPA issued a [final rule](#) regulating TCE under the Toxic Substances Control Act (TSCA) to protect people from health risks including liver cancer, kidney cancer, and non-Hodgkin's lymphoma. TCE also causes damage to the central nervous system, liver, kidneys, immune system, reproductive organs, and causes fetal heart defects.

Who is subject to the TCE regulation?

Anyone who manufactures (including imports), processes, distributes in commerce, uses, or disposes of TCE or products containing TCE may be impacted by EPA's regulation of the chemical. The table below is a summary of key points; full details are in the [final rule](#).

What is the TCE regulation¹ under TSCA?

All uses of TCE are eventually prohibited.

Workplace Chemical Protection Program

A workplace chemical protection program (WCPP) is required for a limited number of conditions of use of TCE where a phase-out will take longer than one year. Some of these uses include:

- Domestic manufacturing.
- Import.
- Processing as a reactant/intermediate.
- Processing into formulation, mixture or reaction product.
- Recycling.
- Use as a processing aid in select manufacturing applications.
- Use as an adhesive and sealant for essential aerospace applications.
- Use in batch vapor degreasing for land-based DoD defense systems.
- Use as a solvent in closed-loop batch vapor degreasing for rayon fabric scouring for end use in rocket booster nozzle production.
- Use in closed-loop or open-top batch vapor degreasing for essential aerospace parts and narrow tubing used for medical devices.
- Use for vessels of the Armed Forces and their systems.
- Use as a solvent in closed-loop vapor degreasing necessary for rocket engine cleaning.
- Certain types of disposal.

The WCPP requires owners and operators of facilities using TCE to meet new inhalation exposure limits (e.g., interim ECEL: 0.2 ppm as an 8-hour TWA). Additional details on the WCPP requirements and compliance timeframes are available on page 3.

Prohibitions for Consumer Uses

Manufacturing TCE for consumer uses is prohibited after **March 17, 2025**. Processing and distributing TCE for consumer uses is prohibited after **June 16, 2025**.

Prohibitions for Industrial and Commercial Uses

Manufacturing TCE for industrial and commercial uses is prohibited after **March 17, 2025**. Processing TCE for industrial and commercial uses is prohibited after **June 16, 2025**, and industrial and commercial uses of TCE are prohibited after **September 15, 2025**. Select uses may continue temporarily under an extended phase-out or TSCA Section 6(g) exemption.

Regulatory Threshold

Products containing TCE up to 0.1% by weight are excluded from this regulation.

Other Workplace Controls

There are other workplace controls for use in energized electrical cleaner and disposal at cleanup sites and water treatment facilities (see § 751.317 and § 751.319).

¹ Details of these requirements, including longer phases-outs and time-limited section 6(g) exemptions, are in 40 CFR Part 751, subpart D, available at <https://www.federalregister.gov/documents/2024/12/17/2024-29274/trichloroethylene-tce-regulation-under-the-toxic-substances-control-act-tsca> and <https://www.ecfr.gov/current/title-40/part-751>.



Compliance Timelines for Prohibitions

EPA prohibits the manufacturing (including importing), processing, and distribution in commerce of TCE for all uses. The final rule imposes prohibitions in a staggered timeframe, beginning at the top of the supply chain.¹

Requirement	Compliance Date
Prohibition on manufacturing (including importing)	
All persons are prohibited from manufacturing (including importing) TCE except for certain uses (see § 751.305(b)(1)).	March 17, 2025
Prohibition on processing and distribution in commerce	
All persons are prohibited from processing TCE and distributing TCE in commerce, including any TCE-containing products, except for certain uses (see § 751.305(b)(2)).	June 16, 2025
Prohibition on industrial and commercial use	
All persons are prohibited from industrial or commercial use of TCE, including any TCE-containing products, except for certain uses (see § 751.305(b)(3)).	September 15, 2025
Prohibition on certain types of disposal	
All persons are prohibited from disposal of TCE wastewater to industrial pre-treatment, industrial treatment, or publicly owned treatment works except for certain uses (see § 751.305(b)(4)).	September 15, 2025
Prohibition on manufacturing (including importing), processing and use for vapor degreasing	
<ul style="list-style-type: none"> All persons are prohibited from manufacturing (including importing) TCE for industrial and commercial use for batch vapor degreasing in open-top and closed-loop degreasing equipment except for certain uses (see § 751.305(b)(5)). 	June 16, 2025
<ul style="list-style-type: none"> All persons are prohibited from processing TCE for industrial and commercial use for batch vapor degreasing in open-top and closed-loop degreasing equipment except for certain uses (see § 751.305(b)(6)). 	September 15, 2025
<ul style="list-style-type: none"> All persons are prohibited from the industrial and commercial use of TCE for batch vapor degreasing in open-top and closed-loop degreasing equipment except for certain uses (see § 751.305(b)(7)). 	December 18, 2025
Prohibition on manufacturing (including importing) and processing for use as a processing aid	
<ul style="list-style-type: none"> All persons are prohibited from manufacturing (including importing) TCE for the industrial and commercial use of TCE as a processing aid in: process solvent used in battery manufacture; process solvent used in polymer fiber spinning, fluoroelastomer manufacture and Alcantara manufacture; extraction solvent used in caprolactam manufacture; precipitant used in beta-cyclodextrin manufacture; except for certain uses (see § 751.305(b)(8)). 	June 10, 2026
<ul style="list-style-type: none"> All persons are prohibited from processing for and the industrial and commercial use of TCE as a processing aid in: process solvent used in battery manufacture; process solvent used in polymer fiber spinning, fluoroelastomer manufacture and Alcantara manufacture; extraction solvent used in caprolactam manufacture; precipitant used in beta-cyclodextrin manufacture; except for certain uses (see § 751.305(b)(9)). 	December 18, 2026
Prohibitions with longer phaseout timeframes and TSCA section 6(g) exemptions	
For manufacturing, processing, distribution in commerce, use, and disposal of TCE under an extended phase-out or TSCA Section 6(g) exemption under which TCE may be used, in conjunction with workplace controls, for longer timeframes until prohibitions.	see § 751.305-325

¹ **This is not an exhaustive list.** For a list of all timeframes, please consult the final rule, 40 CFR Part 751, subpart D, available at <https://www.federalregister.gov/documents/2024/12/17/2024-29274/trichloroethylene-tce-regulation-under-the-toxic-substances-control-act-tsca> and <https://www.ecfr.gov/current/title-40/part-751>.

Compliance Timelines* for the Workplace Chemical Protection Program until Prohibition

Initial Monitoring	Exposure Limits and Dermal Protections	Workplace Information and Training Program	Exposure Control Plan	Other Exposure Monitoring
<p>Complete initial monitoring within 180 days, or within 30 days of initiating use.</p> <p>Demarcate regulated area within 90 days of initial monitoring data.</p> <p>Provide respiratory protection within 90 days of initial monitoring data.</p> <p><u>Existing Facilities Before June 16, 2025</u> (180 days after final rule publication).</p> <p><u>Facilities with New TCE Use</u> Within 30 days of initiating use.</p>	<p>Ensure that TCE inhalation exposures do not exceed the interim ECEL for all potentially exposed persons (e.g., workers and others in the workplace).</p> <p>Provide respiratory and/or dermal protection as applicable.</p> <p><u>Existing Facilities Before September 15, 2025</u> (270 days after final rule publication).</p> <p><u>Facilities with New TCE Use</u> Within 90 days after receipt of any exposure monitoring that indicates exposures above the interim ECEL.</p>	<p>Develop and implement a program to train potentially exposed persons (e.g., workers and others in the workplace) on the rule's requirements.</p> <p>Ensure participation in a training and information program for potentially exposed persons by September 15, 2025 (270 days after final rule publication).</p>	<p>Develop and implement an exposure control plan within 1 year, or before December 18, 2025.</p> <p>Notify potentially exposed persons of completion of exposure control plan within 30 days of its completion.</p> <p>Provide requested records by a potentially exposed person within 15 days of request.</p> <p>Update Exposure Control Plan at least every 5 years or when circumstances change significantly.</p>	<p><u>Periodic Monitoring</u> Conduct at a minimum every 5 years but could occur as frequently as every 90 days, dependent upon initial monitoring results.</p> <p><u>As Needed Monitoring</u> Conduct additional monitoring within 30 days after any change that may reasonable be expected to introduce new or additional sources of TCE exposure or where there is a reason to believe exceedances of the interim ECEL level have occurred.</p>

* There are longer timeframes for Federal agencies and contractors acting for or on behalf of those agencies. See final rule for details.

For More Information

- For information or questions on the regulation of TCE under TSCA, and for additional compliance guidance that the EPA intends to release, visit <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-trichloroethylene-tce> or contact TCE.TSCA@epa.gov.
- For general questions and document requests about TSCA requirements, contact the TSCA Hotline at (800)-471-7127 or tsc-hotline@epa.gov.
- To read a non-technical summary of the risk evaluation for TCE, visit https://www.epa.gov/system/files/documents/2023-01/TCE_Non%20Technical%20Summary_12-21-22-final-v2.pdf.
- For general information or questions on environmental regulations and compliance for small business owners, visit <https://www.epa.gov/resources-small-businesses> or contact asbo@epa.gov. The National [SBEAP Program](#) also provides one-on-one compliance assistance [in most states](#).