

EPA Finalizes Workplace Control Requirements for Carbon Tetrachloride

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The U.S. Environmental Protection Agency (EPA) has finalized a rule to protect workers from exposure to carbon tetrachloride (CTC), 40 C.F.R Part 751, Subpart H. This [final rule](#), published on December 18, 2024, aligns with President Biden's Cancer Moonshot initiative and is the fifth risk management rule to be finalized using the process created by the bipartisan [2016 Toxic Substances Control Act \(TSCA\) amendments](#). The rule follows a risk evaluation that determined that CTC presents an "unreasonable risk of injury to human health under its conditions of use" per TSCA section 6(b). The final rule for CTC imposes bans on certain high-risk uses and mandates comprehensive safety measures to protect workers and the environment for permissible uses.

The rule's effective date is January 17, 2025, three days before the Inauguration of President Trump. It will not be affected by the anticipated regulatory freeze for rules that have not yet become effective, but it may be addressed under the Congressional Review Act. See our alert [here](#).

Background

According to EPA, carbon tetrachloride is a toxic chemical that causes liver cancer, brain tumors, and adrenal gland tumors. It is a solvent used in commercial settings as a raw material for producing other chemicals, such as those used in chemical manufacturing, refrigerants, aerosol propellants, foam-blowing agents, laboratory chemicals, agricultural products, vinyl chloride manufacturing, and chlorine production. The U.S. Consumer Product Safety Commission banned the use of CTC in consumer products in 1970. Most industrial uses, except chemical manufacturing, were phased out decades ago.

Under TSCA section 6(b)(4), the EPA must conduct risk evaluations of certain chemical substances to determine whether they present an unreasonable risk of injury to health or the environment without consideration of costs or other non-risk factors. In 2020, the first Trump EPA finalized a [risk evaluation](#) for CTC, finding that the chemical presents an unreasonable risk under certain "conditions of use" – meaning the circumstances under which a chemical substance is intended, known, or

reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of. The Biden EPA published a [revised risk determination](#) for CTC in 2022, considering CTC as a whole chemical substance rather than focusing on individual conditions of use.

On July 28, 2023, EPA published a [proposed rule](#) to address the unreasonable risk of injury to human health presented by CTC under its conditions of use. After receiving and considering public comments, EPA has now finalized the rule with modifications. The final rule addresses the unreasonable risks identified by adopting measures to protect workers from exposure to CTC.

Risk Management Approach

The final rule does not ban all uses of the chemical. Instead, it imposes significant restrictions and safety measures to protect workers. The rule prohibits the manufacture (including import), processing, distribution in commerce, and industrial/commercial use of CTC for conditions of use where information indicates that the use has been discontinued. For ongoing uses, the rule requires the implementation of a Workplace Chemical Protection Program (WCPP), which includes specific inhalation exposure limits and dermal protection. Certain critical uses of CTC, such as refrigerants, aerosol propellants, and foam-blowing agents, are allowed to continue under the WCPP. Requirements under the WCPP may lead to increased ventilation of CTC outside of the workplace, but increased releases of CTC to outdoor air associated with the implementation of the WCPP/ECEL are prohibited. The rule also mandates recordkeeping and downstream notifications.

Complete Bans

The final rule establishes a complete ban on certain uses of CTC that are no longer ongoing and that EPA has determined present an unreasonable risk to human health. This includes the prohibition of CTC in applications such as metal recovery and as an additive in fuel and plastic components used in the automotive industry. The rule mandates that these apparently discontinued uses must cease entirely and not resume. The prohibitions apply beginning June 16, 2025.

Continued Uses Subject to WCPP

The final rule also allows for the continued use of CTC in specific applications under stringent conditions. These continued uses are permitted under the WCPP, including inhalation exposure limits and dermal protections to safeguard workers. Allowed uses include the incorporation of CTC into formulation, mixture, or reaction products in agricultural products manufacturing, vinyl chloride manufacturing, and other basic organic and inorganic chemical manufacturing. Additionally, CTC may be used in the elimination of nitrogen trichloride in chlorine production and the recovery of chlorine in tail gas, as well as its use in the production of hydrochlorofluorocarbons, hydrofluorocarbons, hydrofluoroolefins, and perchloroethylene. These continued uses can proceed as long as the specified safety measures are implemented.

Exemption

EPA has excluded CTC from the rule's requirements when it is present unintentionally in trace amounts within another chemical substance or mixture. This exclusion applies to situations where CTC is found as a manufacturing residue, unreacted feedstock, byproduct, or other contaminant. EPA did not set a specific numerical threshold for what constitutes "trace quantities," relying instead on the common understanding of the term.

Impact on Regulated Industry and Next Steps

Workplace Controls

Each owner or operator must ensure that the airborne concentration of CTC does not exceed the existing chemical exposure limit (ECEL) for all potentially exposed persons. EPA set an ECEL of 0.03 ppm (0.2 mg/m³) as an 8-hour time-weighted average (TWA) based on the threshold point of departure for liver cancer and the inhalation unit risk for adrenal cancer. EPA asserts that this ECEL will eliminate the unreasonable risk of injury to health for CTC resulting from acute and chronic inhalation exposures in an occupational setting. This value is considerably lower than OSHA's permissible exposure limit of 10 ppm TWA. Compliance with the ECEL is required by September 9, 2026.

EPA also finalized an ECEL action level of 0.02 ppm as an 8-hour TWA. Air concentrations at or above the action level would trigger more frequent periodic monitoring of exposures to CTC, consistent with the action level approach utilized by OSHA in implementing OSHA standards. Initial monitoring is required by June 11, 2026.

Companies must also establish regulated areas where airborne concentrations of CTC exceed or are reasonably expected to exceed the ECEL. These areas must be demarcated and have limited access. Compliance with the regulated areas provision is required by September 9, 2026.

The rule imposes personal protective equipment requirements. Direct dermal contact controls are required by June 11, 2026. Respiratory protection is required by September 9, 2026.

Employers must also provide information and training about CTC to workers by September 9, 2026.

By December 3, 2027, companies subject to the WCPP must adopt exposure control procedures and a plan that institutes one or a combination of "elimination, substitution, engineering controls, or administrative controls" to reduce exposures to or below the ECEL and/or prevent direct dermal contact with CTC for all potentially exposed persons.

Recordkeeping

Companies must begin maintaining records demonstrating compliance with the rule's provisions for 5 years from the date the record is generated. These may be ordinary business records, such as invoices and bills of lading. Compliance with this requirement is required after February 18, 2025.

Customer Notifications

Beginning February 18, 2025, all manufacturers must provide written notification of relevant restrictions to all downstream users or recipients of CTC or CTC-containing products by revising relevant language in their safety data sheets. Processors and distributors must do the same by June 16, 2025.

Outlook

The CTC final rule, like the final rules for [perchloroethylene and trichloroethylene](#), will become effective prior to Inauguration Day. Its fate after that is unclear.

We expect the Trump administration to promptly issue a regulatory freeze, [as it did on taking office in 2017](#), but the freeze will not apply to rules that have already taken effect.

Congress might act to disapprove the rule through the [Congressional Review Act](#). If not, the Trump EPA could amend the rule through notice-and-comment rulemaking. If the rule is challenged on judicial review, EPA could seek voluntary remand so that it can reconsider the rule.

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