

A GUIDE TO COMPLYING WITH THE 2024 METHYLENE CHLORIDE REGULATION UNDER THE TOXIC SUBSTANCES CONTROL ACT (TSCA) (RIN 2070-AK70)

Includes:

Includes Compliance Guidance on Prohibitions, Workplace Chemical Protection Program (WCPP), and Other Requirements



This guide includes small entity compliance guidance prepared pursuant to section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996, Pub. L. 104-121 as amended by Pub. L. Number 110-28. The statutory provisions and EPA regulations described in this document contain legally binding requirements. This document does not substitute for those provisions or regulations, nor is it a regulation itself. Thus, this document does not, and is not intended to, impose legally binding requirements on EPA or the regulated community, and may not apply to a particular situation based upon the circumstances. THIS DOCUMENT IS NOT INTENDED, NOR CAN IT BE RELIED UPON, TO CREATE ANY RIGHTS ENFORCEABLE BY ANY PARTY IN LITIGATION WITH THE UNITED STATES. The statements in this document are intended solely as guidance to aid you in complying with the EPA regulation *Methylene Chloride; Regulation under Section 6(a) of the Toxic Substances Control Act (TSCA)* and the implementing regulations in 40 CFR Part 751. The EPA retains the discretion to adopt approaches on a case-by-case basis that differ from this guide where appropriate. The EPA may decide to revise this guide without public notice to reflect changes in the EPA's approach to regulating **chemical substances** generally or this chemical substance (methylene chloride) under TSCA or to clarify information and update text.

To get help accessing technical resources on environmental regulations and compliance assistance information contact the <u>EPA's Small Business Ombudsman</u> or visit the <u>EPA's small business resources page</u>. For information specific to the methylene chloride regulation, consult the EPA's <u>methylene chloride TSCA risk management website</u>. A fact sheet summarizing information from this guide is at https://www.epa.gov/system/files/documents/2024-07/mecl-fact-sheet 0.pdf.

The full text of the implementing regulation can be found at <u>40 CFR Part 751</u> and also in the Federal Register (<u>89 FR 39254, May 8, 2024</u>) and at docket EPA-HQ-OPPT-2020-0465 at https://www.regulations.gov.

FOR FURTHER INFORMATION: For methylene chloride technical information contact: email address: MethyleneChlorideTSCA@epa.gov. For general information contact: The TSCA-Hotline, ABVI-Goodwill, 422 South Clinton Ave., Rochester, NY 14620; telephone number: (202) 554-1404; email address: TSCA-Hotline@epa.gov.

Reproduction of the manual

This manual may be reproduced, but if this manual is altered, it may not provide accurate information that owners or operators need to comply with the requirements of the EPA's regulation of methylene chloride under TSCA. Additionally, altering this guide may prevent potentially exposed persons from properly informing themselves of the protections required by the EPA.

The EPA may issue additional guidance about the methylene chloride regulation and may amend the rule in the future. Please check the EPA's methylene chloride website for further information and current amendments.

This manual, titled "A Guide to Complying with the 2024 Methylene Chloride Regulation under the Toxic Substances Control Act (TSCA)," and other materials related to methylene chloride are available at https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-methylene-chloride.



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I: Overview

A. Why is the information in this compliance guide important?

The information in this guide can help you understand and comply with new regulations from the U.S. Environmental Protection Agency (EPA) for the chemical substance, methylene chloride. Being aware of and correctly following the methylene chloride regulation will prevent injuries, long-term illness, and, in some cases, death.

The EPA evaluates chemical substances under section 6(b) of the Toxic Substances Control Act (TSCA) to determine whether the chemical substance presents an unreasonable risk of injury to health or the environment, without consideration of costs or non-risk factors, including potentially exposed or susceptible subpopulations, under the conditions of use. If the EPA finds that a chemical substance presents an unreasonable risk, the Agency then regulates the chemical under section 6(a) of TSCA so that the chemical no longer presents such risk.

The EPA issued Methylene Chloride; Regulation under Section 6(a) of the Toxic Substances Control Act (TSCA)¹ on May 8, 2024, in the Federal Register. This regulation went into effect on July 8, 2024, and updated the Code of Federal Regulations at 40 CFR Part 751, subpart B². (This is also referred to throughout this guide as the methylene chloride rule). The EPA's regulation impacts all conditions of use of methylene chloride subject to TSCA, and you could be impacted if you manufacture, process, use, or dispose of methylene chloride.

This guidance document provides information to help you comply with the requirements of the methylene chloride rule. It is important to note that it is a violation of Federal law to manufacture (including import), process, distribute in commerce, use, or dispose of methylene chloride in a manner inconsistent with TSCA and the methylene chloride rule. Violations of EPA regulations may result in penalties and injunctive relief (e.g., preventing certain actions) as appropriate.

Words or phrases that appear in **bold red text** throughout this guide are defined in the glossary in <u>Appendix A</u>. Other abbreviations are also spelled out in the Abbreviations List.

This compliance guide:

- Provides a short description of why the methylene chloride rule is important (<u>Unit II.A</u>);
- Helps you determine whether you need to comply with the methylene chloride rule and what your responsibilities may be (<u>Unit III</u>);
- Gives you detailed information on how to comply with the components of the regulation, including prohibitions, the Workplace Chemical Protection Program (WCPP), recordkeeping requirements, downstream notifications, and other requirements (Unit IV, Unit VII);
- Provides information on exemptions (<u>FAQs</u>);
- Outlines the various timeframes for compliance (Unit IV.B, Unit V.A, Unit VI.D, Unit VII);
- Explains how important definitions affect your compliance responsibilities; and
- Provides notes to help you better understand your compliance responsibilities and how the rule applies to you.

This compliance guide also includes special attention throughout to the interests and needs of small businesses.

B. Do you need to read this guide?

The EPA's risk management regulations under TSCA section 6(a) apply to entities that manufacture (including import), process, distribute in commerce, use, or dispose of the chemical substance subject to regulation. Note that under TSCA, the definition of manufacture includes import (see § 711.3).³

 $^{^{1}\,\}underline{\text{https://www.federalregister.gov/documents/2024/05/08/2024-09606/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca}$

² https://www.ecfr.gov/current/title-40/part-751/subpart-B

³ https://www.ecfr.gov/current/title-40/chapter-l/subchapter-R/part-711/section-711.3.



For methylene chloride, the methylene chloride rule applies to entities that manufacture (including import), process, distribute in commerce, use, or dispose of methylene chloride or **products** containing methylene chloride. This includes facilities engaged in chemical manufacturing, processing (including repackaging, recycling, and formulating), distributing chemicals in commerce (including by **retailers** and other entities), commercial use and disposal of chemical substances (see <u>FAQs</u> at the end). Please refer to <u>Unit III:</u> <u>Determining Your Responsibilities</u> for more information.

Potentially exposed persons (such as workers and others in the workplace) may want to refer to this guide to understand what protections may be required in the workplace under these regulations, and for awareness of the unreasonable risks from methylene chloride that the EPA has identified. This guide may also be beneficial to consumers, community members, or anyone else that may be affected by exposure to chemical substances that the EPA has determined present an unreasonable risk, including methylene chloride. A list of potentially affected entities is in Appendix C of this document. Note that this is not an exhaustive list.

C. How is this compliance guide organized?

This guide covers the major provisions of the methylene chloride rule (see 40 CFR Part 751, subpart B). Depending on whether and for what purpose you manufacture (including import), process, distribute in commerce, use, or dispose of methylene chloride, you may need to follow the EPA requirements for the WCPP, prohibitions, recordkeeping and notification, or a combination of requirements. Table 1 in Unit III.B. describes which sections of the compliance guide you may find most relevant based upon your use of the chemical.

D. Additional regulations

In addition to applicable risk management regulations for methylene chloride under TSCA section 6(a), other Federal, state, or local statutes or regulations may also be relevant to you. Some examples:

- Occupational Safety and Health Administration (OSHA)
 - Methylene chloride standard 1910.1052;
 - Hazard Communication 1910.1200; and
 - Occupational exposure to hazardous chemicals in laboratories 1910.1450.
- National Emission Standards for Hazardous Air Pollutants (NESHAP) which include:
 - 40 CFR Part 63, subpart F, Synthetic Organic Chemical Manufacturing Industry;
 - 40 CFR Part 63, subpart DD, Off-Site Waste and Recovery Operations;
 - 40 CFR Part 63, subpart VVV, Publicly Owned Treatment Works; and
 - 40 CFR Part 63, subpart VVVVV, NESHAP for Chemical Manufacturing Area Sources.
- <u>Comprehensive Environmental Response,</u> <u>Compensation, and Liability Act.</u>
- Resource Conservation and Recovery Act (RCRA).

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⁴ https://www.ecfr.gov/current/title-40/part-751/subpart-B



II: EPA's Regulation of Methylene Chloride Under TSCA Section 6

This unit describes how and why the EPA is regulating methylene chloride under section 6 of TSCA.

A. What is methylene chloride?

Methylene chloride – also called dichloromethane or DCM – is a colorless liquid and a volatile chemical with a sweet odor. As of the date of publication of the EPA's regulation of methylene chloride in the Federal Register (May 8, 2024), this solvent was used in a variety of consumer and commercial applications including adhesives and sealants, and automotive products. Methylene chloride is both produced in and imported into the United States and is distributed in commerce, used, and disposed of as part of many industrial and commercial conditions of use.

B. What are the risks to health from methylene chloride?

The EPA identified non-cancer health risks from acute and chronic inhalation and dermal exposures to methylene chloride, and cancer health risks from chronic inhalation and dermal exposures to methylene chloride. The EPA identified neurotoxicity effects (central nervous system) as the most sensitive endpoint of the adverse effects from acute inhalation and dermal exposures, and liver effects as the most sensitive endpoint of the non-cancer adverse effects from chronic inhalation and dermal exposures to methylene chloride for all conditions of use.

Methylene chloride's hazards are <u>well established</u>. ⁵ Some of the adverse effects from methylene chloride exposure at high levels can be experienced immediately upon exposure, such as dizziness, and can result in sudden loss of consciousness or death. Some adverse effects from chronic lower-level exposures may result in long-term impacts including cancer and liver damage. Fatalities from acute methylene chloride exposures have been documented and pose a serious health threat, particularly for workers.

C. Why is the EPA regulating methylene chloride?

The EPA determined that methylene chloride presents an unreasonable risk of injury to human health under the conditions of use. This is based on a <u>risk</u> <u>evaluation</u> for methylene chloride that the EPA issued in 2020 pursuant to TSCA section 6(b).⁶ The details of the EPA's <u>unreasonable risk determination</u> were finalized in November 2022.⁷

D. How is the EPA regulating methylene chloride?

- Prohibits the manufacture (including import), processing, and distribution in commerce of methylene chloride for all consumer use and most industrial and commercial uses;
- Requires a WCPP for 13 conditions of use of methylene chloride:
- Identifies a de minimis threshold of 0.1% for products containing methylene chloride for the prohibitions and restrictions on methylene chloride;
- Requires recordkeeping and downstream notification requirements for manufacturing (including import), processing, and distribution in commerce of methylene chloride; and
- Provides a 10-year time-limited exemption under TSCA section 6(g) for emergency use of methylene chloride in furtherance of the National Aeronautics and Space Administration's (NASA) mission for specific conditions which are critical or essential and for which no technically and economically feasible safer alternative is available, taking into consideration hazard and exposure with conditions for this exemption to include compliance with the WCPP.

More detail is in the methylene chloride rule, and guidance for compliance is provided throughout this document.

⁵ https://www.regulations.gov/document/EPA-HQ-OPPT-2016-0742-0120

⁶ https://www.regulations.gov/document/EPA-HQ-OPPT-2019-0437-0107

⁷ https://www.epa.gov/system/files/documents/2022-11/MC Final%20Revised%20RD 10.26.22-final%20%281%29.pdf

⁸ https://www.federalregister.gov/documents/2024/05/08/2024-09606/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca



III: Determining Your Responsibilities

This unit provides information to help you determine your responsibilities under the final rule, which may depend on your role and how you use methylene chloride.

A. Does this rule apply to you?

You may be impacted by this rule if you manufacture (including import), process, distribute in commerce, use, or dispose of methylene chloride or products containing methylene chloride. The EPA identified and assessed all intended, known, and reasonably foreseen uses of methylene chloride subject to TSCA, and determined that all TSCA industrial, commercial, and consumer uses of methylene chloride contribute to the unreasonable risk of injury to health.

Table 1 shows how each condition of use is regulated. For descriptions of each **condition of use**, see <u>Appendix B</u> of this guide or Unit III.B.1 of the <u>2023</u> proposed methylene chloride rule.⁹

It is important to understand whether the EPA's rule applies to you because you may have to cease certain activities, comply with a WCPP, keep records, update safety data sheets (SDSs), or complete other activities to be in compliance with the rule and avoid potentially significant non-compliance penalties.

B. What is your role?

Are you an owner, operator, or something else?

- Owners or operators are persons responsible for implementing the WCPP in any workplace that has an applicable condition of use (see Table 1 below and 40 CFR 751.109). The EPA has defined the phrase "owner or operator" to include any person who owns, leases, operates, controls, or supervises a workplace covered within 40 CFR Part 751 (see 40 CFR 751.5). Owners or operators are responsible for compliance with the WCPP, if applicable, including ensuring that inhalation exposures do not exceed the limit the EPA has identified. Any provisions applying to the term "employer" in OSHA's regulations 10 apply equally to any owner or operator for the regulated area. While owners or operators remain responsible for ensuring compliance, they may contract with others to provide services required for compliance, such as training or implementing a respiratory protection program, for example.
- The EPA has defined the phrase "potentially exposed person" to mean any person who may be exposed to a chemical substance (in this case methylene chloride) in a workplace as a result of a condition of use of that chemical substance or mixture (see 40 CFR 751.5). This includes workers, employees, independent contractors, employers, and all other persons in the workplace where methylene chloride is present.
- The EPA has defined the word "retailer" to describe any person or business entity that distributes or makes available a chemical substance or mixture to consumer end users, including through ecommerce internet sales or distribution (see 40 CFR 751.5). Any distributor with at least one consumer end user customer is a retailer. A person who distributes in commerce or makes available a chemical substance or mixture solely to commercial or industrial end users or solely to commercial or industrial businesses is not a retailer.

⁹ https://www.federalregister.gov/documents/2023/05/03/2023-09184/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca

¹⁰ OSHA regulations at 29 CFR 1910.132 (see https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134), and 29 CFR 1910.1052 (see https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1052.



Table 1 – Conditions of Use of Methylene Chloride and Relevant Units Within This Guide

Workplace Chemical Protection Program (WCPP)
Prohibition with Extended Timeframe
Prohibition



Conditions of Use of Methylene Chloride

Disposal

Relevant Units in this Guide

Conditions of use of methylene chloride under TSCA that require WCPP (unless the downstream use is prohibited):

IV VII VIII Domestic manufacturing IV, VII, VIII Import for manufacturing IV, VII, VIII Processing as incorporation into formulation, mixture, or reaction product IV, VII, VIII Processing as a reactant IV, VII, VIII Processing as repackaging IV, VII, VIII Processing as recycling IV, VIII Industrial and commercial use as a paint and coating remover from safety critical, corrosionsensitive components of aircraft and spacecraft IV, VIII Industrial and commercial use as a solvent that becomes part of a formulation or mixture IV, VIII Industrial and commercial use as a processing aid IV, VIII Industrial and commercial use as a laboratory chemical IV, VIII Industrial and commercial use for plastic and rubber products manufacturing IV, VIII Industrial or commercial use as a bonding agent for solvent welding

Conditions of use of methylene chloride under TSCA with prohibitions with extended timeframes:

Commercial use in adhesives and sealants in aircraft, space vehicle, and turbine applications for structural and safety critical non-structural applications

VI.D., VII, VIII VI.D., VII, VIII

IV, VII, VIII

Commercial use in refinishing wood pieces of artistic, cultural, or historic value

All other known, intended, or reasonably foreseen uses of methylene chloride under TSCA are prohibited including:

Industrial and commercial use as solvent for batch vapor degreasing VI, VIII VI, VIII Industrial and commercial use as a solvent for in-line vapor degreasing Industrial and commercial use as a solvent for cold cleaning VI, VIII VI, VIII Industrial and commercial use as a solvent for aerosol spray degreaser/cleaner Industrial and commercial use in paints and coatings VI, VIII VI, VIII Industrial and commercial use in paint and coating removers Industrial and commercial use in adhesive and caulk removers VI, VIII VI, VIII Industrial and commercial use in metal aerosol and non-aerosol degreasers VI, VIII Industrial and commercial use in finishing products for fabric, textiles, and leather



Conditions of Use of Methylene Chloride				
Industrial and commercial use in automotive care products:				
Functional fluids for air conditioners	<u>VI, VIII</u>			
Interior car care	<u> </u>			
• Degreasers				
Industrial and commercial use in apparel and footwear care products	<u>VI,</u> <u>VIII</u>			
Industrial and commercial use in spot removers for apparel and textiles	<u>VI, VIII</u>			
Industrial and commercial use in liquid lubricants and greases	<u>VI, VIII</u>			
Industrial and commercial use in spray lubricants and greases	<u>VI,</u> <u>VIII</u>			
Industrial and commercial use in aerosol and non-aerosol degreasers and cleaners	<u>VI, VIII</u>			
Industrial and commercial use in cold pipe insulations	<u>VI,</u> <u>VIII</u>			
Industrial and commercial use as propellant and blowing agent	<u>VI,</u> <u>VIII</u>			
Industrial and commercial use for electrical equipment, appliance, and component manufacturing	<u>VI,</u> <u>VIII</u>			
Industrial and commercial use in cellulose triacetate film production	<u>VI,</u> <u>VIII</u>			
Industrial and commercial use as anti-spatter welding aerosol	<u>VI, VIII</u>			
Industrial and commercial use for oil and gas drilling, extraction, and support activities	<u>VI, VIII</u>			
Industrial and commercial use for toys, playgrounds, and sporting equipment	<u>VI, VIII</u>			
Industrial and commercial use in lithographic printing plate cleaner	<u>VI, VIII</u>			
Industrial and commercial use in carbon remover, wood floor cleaner, and brush cleaner	<u>VI, VIII</u>			
Consumer use as a solvent in aerosol degreasers/cleaners	<u>VI, VIII</u>			
Consumer use in adhesives and sealants	<u>VI, VIII</u>			
Consumer use in brush cleaners for paints and coatings	<u>VI, VIII</u>			
Consumer use in adhesive and caulk removers	<u>VI, VIII</u>			
Consumer use in metal degreasers	<u>VI, VIII</u>			
Consumer use in automotive care products:				
Functional fluids for air conditioners	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
Degreasers	<u>VI,</u> <u>VIII</u>			
Consumer use in lubricants and greases				
Consumer use in cold pipe insulation	<u>VI, VIII</u>			
Consumer use in arts, crafts, and hobby materials glue	<u>VI, VIII</u>			
Consumer use in an anti-spatter welding aerosol	<u>VI, VIII</u>			
Consumer use in carbon removers and other brush cleaners	<u>VI, VIII</u>			



C. Are there uses of methylene chloride that this rule does NOT apply to?

- The EPA's rule includes a de minimis regulatory threshold of 0.1%. Products that include methylene chloride below 0.1% by weight are not subject to the restrictions in this regulation.
- The EPA's rule does not apply to any substance excluded from the definition of "chemical substance" under TSCA section 3(2)(B)(i) through (vi). These exclusions include:
 - Any food, food additive, drug, cosmetic, or device (as defined in section 201 of the <u>Federal Food, Drug, and Cosmetic Act</u>)¹¹ when manufactured, processed, or distributed in commerce for use as a food, food additive, drug, cosmetic, or device;

- Any pesticide (as defined in the <u>Federal</u> <u>Insecticide</u>, <u>Fungicide</u>, <u>and Rodenticide Act</u>)¹² when manufactured, processed, or distributed in commerce for use as a pesticide;
- Tobacco or any tobacco product;
- Any source material, special nuclear material, or byproduct material (as defined in the <u>Atomic</u> <u>Energy Act of 1954</u> and subsequent regulations issued under that Act); and
- Any article, limited to shot shells, cartridges, and components of shot shells and cartridges, of which the sale is subject to the tax imposed by section 4181 of the Internal Revenue Code of 1954 (determined without regard to any exemptions from such tax provided by section 4182 or 4221 or any other provision of such Code) and any component of such an article.

¹¹ https://www.fda.gov/regulatory-information/laws-enforced-fda/federal-food-drug-and-cosmetic-act-fdc-act

¹² https://www.epa.gov/laws-regulations/summary-federal-insecticide-fungicide-and-rodenticide-act



IV: Workplace Chemical Protection Program (WCPP)

The WCPP is a program to protect potentially exposed persons in the workplace and who are engaged in conditions of use that are not prohibited. The WCPP requirements include inhalation exposure limits, called the EPA existing chemical exposure limit (ECEL) and EPA short term exposure limit (EPA STEL) to protect potentially exposed persons. Owners and operators have flexibility in selecting what controls are best for their facility when determining how to comply with the WCPP.

The methylene chloride rule contains provisions as part of the WCPP, including:

- Exposure limits;
- Initial and periodic exposure monitoring;
- Establishment of a regulated area;
- Development and communication of an exposure control plan;
- · Respirator selection criteria;
- Recordkeeping; and
- Downstream notification.

These provisions will ensure that potentially exposed persons are protected in the workplace from methylene chloride for uses that are continuing. For more information about these risks, see <u>Unit II.B</u> this guide.

The following 13 conditions of use of methylene chloride are subject to the WCPP requirements.

Unless listed here, the use of methylene chloride is prohibited (see 40 CFR § 751.107). Descriptions of these conditions of use are in Appendix B.

- Domestic manufacturing
- Import
- Processing as a reactant
- Processing in incorporation into formulation, mixture, or reaction product
- Processing in repackaging
- Processing in recycling
- Industrial and commercial use as a laboratory chemical

- Industrial and commercial use in paint and coating removers for safety critical, corrosion-sensitive components of aircraft and spacecraft
- Industrial or commercial use as a bonding agent for solvent welding
- Industrial and commercial use as a processing aid
- Industrial and commercial use for plastic and rubber products manufacturing
- Industrial and commercial use as a solvent that becomes part of a formulation or mixture where the formulation or mixture will be used inside a manufacturing process and the solvent (methylene chloride) will be reclaimed
- Disposal

A. What are the requirements of the WCPP?

The EPA designed the WCPP to be recognizable to those familiar with the OSHA methylene chloride standard, although there are some important differences (e.g., the occupational exposure limits (OELs)).

The WCPP includes the following requirements, which are discussed in more detail in subsequent sections of this guide.

Occupational exposure limits - In some cases, owners or operators must take certain actions consistent with the hierarchy of controls to meet the EPA occupational exposure limits. For methylene chloride, the WCPP includes an EPA ECEL, EPA short term exposure limit (EPA STEL), and ECEL action level. The ECEL and EPA STEL identify the levels at or below which a potentially exposed person will be protected against unreasonable risk. The ECEL and EPA STEL are similar to the OSHA permissible exposure limit and STEL in that they are regulatory exposure limits, although OSHA PELs do not protect against unreasonable risk as defined under TSCA¹³. The ECEL action level identifies a level at which certain compliance activities would need to be taken (such as exposure monitoring), and at what frequency. The ECEL, EPA STEL, and ECEL action level are described in more detail in Unit IV.D below.

¹³ For more information on EPA's consideration of OSHA standards, see Unit II.C of the methylene chloride proposed rule: https://www.federalregister.gov/documents/2023/05/03/2023-09184/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca#h-17



- Monitoring requirements Workplace air concentrations of methylene chloride must be determined through personal breathing zone samples and remain at or below the occupational exposure limits. Personal breathing zone sampling must be used to determine what actions are necessary to mitigate exposure (see § 751.109(d)). Such actions can include implementing additional feasible engineering and administrative controls, or, until such feasible engineering and administrative controls can be implemented, donning the appropriate level of respiratory protection and PPE, establishing the appropriate frequency of periodic monitoring, and recordkeeping.
- Regulated area Owners or operator must mark areas where airborne concentrations of methylene chloride exceed, or there is a reasonable possibility they may exceed, the inhalation exposure limits (see § 751.5); these exposure limits are described in more detail in <u>Unit D</u> below.
- Exposure control plan Owners or operators must develop and implement an exposure control plan that has several components, including the identification of exposure controls, how the hierarchy of controls is applied to reduce inhalation exposures to a level that is at or below the ECEL and EPA STEL, a description of exposure control implementation, a description of the regulated area(s) and authorized entry, a description of measures to ensure effective controls, and procedures for responding to any potential changes that may introduce additional methylene chloride exposure. See Unit G below for information on the hierarchy of controls and the exposure control plan.

- Respiratory Protection and Personal Protective Equipment (PPE) – In some circumstances, as determined by methylene chloride workplace air concentrations, respiratory protection such as respirators may be required to protect potentially exposed persons. Chemically resistant gloves are required where dermal exposure is possible, after consideration of the hierarchy of controls (see § 751.109(g)). See more detail in <u>Unit IV.H.</u> of this guide.
- Training Comprehensive training in an understandable manner (i.e., plain language) is required before initial job assignments (see § 751.109(h)). Depending on potential exposure, training may also be required for respiratory protection and/or PPE.
- Additional requirements These include recordkeeping and notification to potentially exposed persons of the results of workplace exposure monitoring activities, exposure incidents, and the steps taken or to be taken to protect potentially exposed persons from exposure to methylene chloride.

B. What are the deadlines for meeting the WCPP requirements?

There are several key dates and legal deadlines for owners and operators to comply with the provisions of the WCPP. This section provides an overview of the compliance dates for most users from the methylene chloride rule, ¹⁴ which explains these dates in detail.

See the diagram for more information on the following compliance dates:

- May 5, 2025 Initial Monitoring
- August 1, 2025 Exposure Limits and Dermal Protections
- October 30, 2025 Exposure Control Plan

¹⁴ https://www.federalregister.gov/documents/2024/05/08/2024-09606/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca



Compliance Timelines* for the Workplace Chemical Protection Program

Initial Monitoring

Complete initial monitoring.

Demarcate regulated area within 3 months of initial monitoring data.

Provide respiratory protection within 3 months of initial monitoring data but no later than 15 months after final rule.

Existing Facilities
Before **May 5, 2025**(360 days after final rule publication).

New Facilities
Within 30 days of initiating use.

Exposure Limits and Dermal Protections

Ensure methylene chloride inhalation exposures do not exceed the ECEL (2 ppm as an 8-hr TWA) and EPA STEL (16 ppm as a 15-min TWA) for all potentially exposed persons.

Provide respiratory and/or dermal protection if applicable.

Existing Facilities
Before **August 1**, **2025** (450 days after final rule publication).

New Facilities
Within 90 days of initial exposure monitoring.

Exposure Control Plan

Develop and implement an exposure control plan.

Notify potentially exposed persons of completion of exposure control plan within 30 days of its completion.

Provide requested records by a potentially exposed person within 15 days of request.

Existing Facilities
Before October 30,
2025 (540 days after final rule publication).

New Facilities
Update as necessary, but at least every five years.

Other Monitoring

Periodic Monitoring
Conduct at a
minimum every 5
years, but could
occur as frequently
as every 3 months,
dependent upon initial
monitoring results.

As Needed Monitoring
Conduct additional
monitoring after any
change that may
introduce additional
sources of methylene
chloride exposure or
result in a change in
exposure levels.

C. What are the deadlines for meeting the WCPP as a Federal Agency and contractors of a Federal Agency?

There are several key dates and legal deadlines for compliance with the provisions of the WCPP specific to Federal agencies and Federal contractors acting for or on behalf of the Federal government. While Federal agencies and Federal contractors have different timelines for complying with certain requirements of the WCPP, the contents of those requirements are the same as those outlined in the previous section (IV.B). For more information see, § 751.109(d) and (e).

These dates are:

- November 9, 2026 Carry out initial monitoring (for Federal agencies and Federal contractors acting for or on behalf of the Federal government)
- February 8, 2027 Ensure that workplace methylene chloride concentration levels are at or below the ECEL and EPA STEL (for Federal agencies and Federal contractors acting for or on behalf of the Federal government)
- May 10, 2027 Develop and implement an exposure control plan (for Federal agencies and Federal contractors acting for or on behalf of the Federal government)

^{*} Longer timeframes for Federal agencies and contractors acting for or on behalf of those agencies. See final rule for details.



 For the Department of Defense and Federal contractors acting for or on behalf of the Department of Defense, in the event that ongoing or planned construction is necessary to implement the feasible controls required by § 751.109(e)(1)(i) such that no one is exposed above the ECEL or EPA STEL, the deadline is May 7, 2029.

D. What are the Occupational Exposure Limits (OELs) under the WCPP?

To protect potentially exposed persons from the unreasonable risks from inhalation exposure to methylene chloride in the workplace, the EPA has established OELs for methylene chloride ¹⁵ for 13 conditions of use. All other uses are prohibited.

Existing Chemical Exposure Limit (ECEL) and EPA Action Level

An EPA ECEL is an 8-hour time-weighted average (TWA) regulatory OEL. When implemented along with other WCPP measures, unreasonable risk under the conditions of use identified is no longer presented at the air concentration level of the ECEL. For methylene chloride, the ECEL is 2 ppm (8 mg/m³) as an 8-hour TWA.

Implementation of the ECEL is supported by an **ECEL** action level of 1 ppm (4 mg/m³, or half the ECEL) as an 8-hour TWA. The ECEL action level is a trigger that indicates whether certain compliance activities (e.g., periodic monitoring) are required.

EPA Short Term Exposure Limit (EPA STEL)

An EPA short-term exposure limit (EPA STEL) is a 15-minute TWA regulatory OEL. The EPA STEL protects potentially exposed persons from the unreasonable risks associated with acute exposures. For methylene chloride, the EPA STEL is 16 ppm (57 mg/m³) as a 15-minute TWA. Please note that, in calculating a TWA concentration, the measured air concentrations of a substance are averaged over the monitoring period.

Additional Information on Occupational Exposure Limits

Owners and operators must develop and execute an exposure control plan (see <u>Unit IV.G</u> and § 751.109(e)(2)) to ensure that potentially exposed persons are not exposed to methylene chloride

Example of How to Calculate a TWA

Both the ECEL and the EPA STEL are expressed as time-weighted average (TWA) exposures. TWA measurements account for variable exposure levels over the course of a work shift, averaging periods of higher and lower exposures. The TWA exposure for an 8-hour work shift is computed using a simple formula:

$$TWA = \frac{(C_a T_a + C_b T_b + \dots C_n T_n)}{8}$$

Where TWA is the time-weighted average exposure for the work shift; C is the concentration during any period of time (T) where the concentration remains constant; and T is the duration in hours of the exposure at the concentration (C).

For example, assume that an employee is subject to the following exposure to methylene chloride:

- Two hours exposure at 10mg/m³
- Two hours exposure at 5mg/m³
- Four hours exposure at 1.9mg/m³

Substituting this information in the formula:

$$TWA = \frac{(2 \times 10 + 2 \times 5 + 4 \times 1.9)}{8} = 4.7 \text{ mg/m}^3$$

Since 4.7 mg/m³ is more than 4 mg/m³, the action level has been exceeded. However, as 4.7 mg/m³ is less than 8 mg/m³, the ECEL has not been exceeded.

See Unit IV.E. of this guide for the monitoring requirements once the TWA is calculated.

concentrations greater than the exposure limits described in this guide and listed in 40 CFR 751.103 and 751.109 (c).

What are the monitoring requirements?

The WCPP includes monitoring requirements to ensure that the ECEL and EPA STEL inhalation exposure limits described above are not exceeded. The requirements are:

- Initial monitoring to establish a baseline of exposure for potentially exposed persons
- Periodic exposure monitoring to assure continued compliance and protection from methylene chloride exposure over time. The frequency of periodic

¹⁵ Exposure limits are generally expressed in parts of a chemical substance per million (ppm) as a concentration in air (as a volume fraction) and calculated as a time-weighted average (TWA). A detailed discussion of how exposure limits for methylene chloride were derived is in Unit IV.B.3. of the methylene chloride rule.



monitoring is determined by the methylene chloride levels measured during the initial monitoring and then by successive monitoring activities

- Additional monitoring, as needed
- Notification of monitoring results
- Recordkeeping of each monitoring event

An owner or operator may suspend, or pause, monitoring if certain conditions are met and documented, such as a temporary discontinued use of methylene chloride; however, additional monitoring may be required if workplace conditions change (e.g., changes in production volume), see Unit IV.B.4.e in the methylene chloride rule. ¹⁶

Initial Monitoring

Where methylene chloride is used in the workplace, owners and operators must perform initial monitoring to:

- Establish a baseline of occupational inhalation exposure for potentially exposed persons (highest likely full shift exposures and 15-minute inhalation exposures) (see § 751.109(d)(1)(ii))
- Determine the need for new, revised, or additional exposure controls (such as engineering controls, administrative controls, and/or a respiratory protection program)
- Inform development of the exposure control plan
- Determine the frequency of certain compliance activities, such as periodic monitoring

How and when should initial monitoring occur?

The monitoring sample must be taken when and where operating conditions are best representative of each potentially exposed person's highest likely full shift and 15-minute exposures (see § 751.109(d)(1)(ii)). More information is in "Sampling Requirements" below.

Initial monitoring must take place before May 5, 2025, or within 30 days after introduction of methylene chloride into the workplace, whichever is later (see § 751.109(d)(2)).

Owners and operators must perform initial monitoring and subsequent periodic monitoring to characterize occupational exposures over time (see § 751.109(d)).

Owners and operators may forgo initial monitoring requirements for a period of 5 years, provided that either of the following conditions are met (see also § 751.109(d)(2)(i) and (ii)):

- 1. If the owner or operator provides objective data generated during the last 5 years demonstrating that methylene chloride is not released in the workplace in airborne concentrations at or above the ECEL action level and EPA STEL. The data must represent the highest methylene chloride exposures likely to occur under applicable conditions of use (see also § 751.109(d)(2)(i)). Subsequent initial monitoring must occur within 5 years of the oldest sampling date or date of creation of other objective data in the dataset (see § 751.109(d)(2)(i)), or
- 2. If potentially exposed persons are exposed to methylene chloride for fewer than 30 days per year, the owner or operator must provide measurements taken by direct-metering devices that give immediate results and provide sufficient information regarding potentially exposed persons' exposures to determine and implement the control measures that are necessary to reduce exposures to below the ECEL action level and EPA STEL (see § 751.109(d)(2)(ii)).

What do I do with the results of the initial monitoring?

The results of the initial monitoring determine how frequently periodic monitoring must occur (see § 751.109(d)(3) and "Periodic Monitoring" and Table 3 below). Depending on representative exposures, the owner or operator will have periodic monitoring requirements that range from once every 5 years to once every 3 months. See Unit VII of this guide for more detail on recordkeeping requirements.

The initial monitoring results should also inform occupational exposure controls and development of the exposure control plan. For more details on the exposure control plan, see section G below.

When should periodic monitoring occur?

The results of the initial monitoring determine the need for and frequency of periodic monitoring (see Table 3). Periodic monitoring must occur to ensure that potentially exposed persons are not exposed to a

¹⁶ https://www.federalregister.gov/documents/2024/05/08/2024-09606/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca



level of methylene chloride that would result in unreasonable risk.

Periodic monitoring must be repeated at least once every 5 years (see § 751.109(d)(3)). Monitoring frequency may change depending on the most recent results of periodic monitoring.

Table 3 summarizes the frequency for periodic monitoring that must occur following initial or other monitoring results. Table 4 summarizes conditions for reducing the frequency of periodic monitoring. Additional conditions that may require monitoring are discussed in the "Additional Monitoring" section, below.

Table 3: Periodic Monitoring Requirements Based on Initial Exposure Monitoring Results ^a

Air Concentration Condition	Periodic Monitoring Requirement
The initial exposure monitoring concentration is below the ECEL action level and at or below the EPA STEL. ¹⁷ (concentration < 1 ppm, 8-hr TWA; AND concentration ≤ 16 ppm, 15-min TWA)	ECEL and EPA STEL periodic monitoring at least once every 5 years.
The initial exposure monitoring concentration is below the ECEL action level and above the EPA STEL. (concentration < 1 ppm, 8-hr TWA; AND concentration > 16 ppm, 15-min TWA)	ECEL periodic monitoring at least once every 5 years AND EPA STEL periodic monitoring required every 3 months.
The initial exposure monitoring concentration is at or above the ECEL action level and at or below the ECEL; and at or below the EPA STEL. (1 ppm, 8-hr TWA ≤ concentration ≤ 2 ppm, 8-hr TWA; AND concentration ≤ 16 ppm, 15-min TWA)	ECEL monitoring every 6 months.
The initial exposure monitoring concentration is at or above the ECEL action level and at or below the ECEL; and above the EPA STEL. (1 ppm, 8-hr TWA ≤ concentration ≤ 2 ppm, 8-hr TWA; AND concentration > 16 ppm, 15-min TWA)	ECEL periodic monitoring every 6 months AND EPA STEL periodic monitoring every 3 months.
The initial exposure monitoring concentration is above the ECEL and below, at, or above the EPA STEL. (concentration > 2 ppm, 8-hr TWA, regardless of monitored concentration relative to 16 ppm, 15-min TWA)	ECEL periodic monitoring every 3 months AND EPA STEL periodic monitoring every 3 months.

^{*} Initial ECEL and EPA STEL monitoring must be repeated at least every 5 years to reestablish current exposure conditions and a new baseline to determine monitoring frequency.

^a Additional scenarios in which monitoring may be required are discussed in "Additional Monitoring", below.

¹⁷ The requirements described in this table are listed in § 751.109(d)(3)



Table 4: Periodic Monitoring Requirements Based on Changes in Conditions a

Changes in Conditions

Changes to Periodic Monitoring Requirement

If 2 consecutive monitoring events have taken place at least 7 days apart that indicate that potential exposure has decreased from above the ECEL to at or below the ECEL, but at or above the ECEL action level.

Transition from ECEL periodic monitoring frequency from every 3 months to every 6 months.

If 2 consecutive monitoring events have taken place at least 7 days apart that indicate that potential exposure has decreased to below the ECEL action level and at or below the EPA STEL.

Transition from ECEL periodic monitoring frequency every 6 months to once every 5 years. The second consecutive monitoring event will delineate the new date from which the next 5-year periodic exposure monitoring must occur.

If the owner or operator engages in any of the conditions of use for which WCPP is finalized and is required to monitor either the ECEL or EPA STEL in a 3-month interval, but does not engage in any of those conditions of use for the entirety of the 3-month interval.

The owner or operator may forgo the upcoming periodic monitoring event. However, documentation of cessation of manufacture, processing, use, or disposal of methylene chloride must be maintained, and initial monitoring would be required when the owner or operator resumes or starts any of the conditions of use for which the WCPP is finalized.

If the owner or operator engages in any of the conditions of use for which WCPP is finalized and is required to monitor the ECEL in a 6-month interval, but does not engage in any of those conditions of use for the entirety of the 6-month interval.

The owner or operator may forgo the upcoming periodic monitoring event. However, documentation of cessation of manufacture, processing, use, or disposal of methylene chloride must be maintained, and initial monitoring would be required when the owner or operator resumes or starts any of the conditions of use for which the WCPP is finalized.

Sampling Requirements

Any initial, periodic, or additional monitoring activities related to the WCPP must meet the following requirements (see § 751.109.(d)(1)(i)(a) and (b); § 751.109(d)(1)(ii)(A), (B), and (C); and § 751.109(d)(6)):

- The sampling must reflect at minimum the required accuracy of monitoring as described below.
- Samples must be taken for every potentially exposed person in the facility, or be taken so that the personal breathing zone samples are representative of potentially exposed persons within a facility.
- Samples must be taken when and where the operating conditions are best representative of each potentially exposed person's full-shift exposures.
- Potentially exposed persons must have an opportunity to observe exposure monitoring representative of their exposure.

- Samples must be taken in the personal breathing zone (PBZ) of the potentially exposed person or representative. PBZ sampling measures and documents either:
 - Each potentially exposed person's exposure;
 - A representative sample that reflects each potentially exposed person's exposure (see § 751.109(d)(1)(ii)).
 - Note that there is a specific exception that allows PBZ samples taken in one shift to apply to other work shifts, provided that the owner or operator can document the tasks and conditions are similar across shifts in the facility sampled (see § 751.109(d)(1)(ii)(C)).
- Sampling must measure workplace air concentrations for methylene chloride (referred to in the rule as ambient air), without taking respiratory protections into account (§ 751.109(d)(2)).

^a Additional scenarios in which monitoring may be required are discussed in in the "Additional Monitoring" section, below



- Sampling methods must be accurate to a confidence level of 95% and within either of the following ranges relative to the EPA exposure limits as noted in § 751.109(d)(2)(iii):
 - Within (plus or minus) 25% of airborne concentrations of methylene chloride above the ECEL or EPA STEL.
 - Within (plus or minus) 35% for airborne concentrations of methylene chloride at or above the ECEL action level but at or below the 8-hour TWA ECEL.

While the EPA does not endorse any specific air monitoring guidelines, ample guidance on sampling considerations is available from NIOSH (NIOSH General Considerations for Sampling Airborne Contaminants [NMAM 5th edition]), OSHA (Method 1025), and other trusted industrial hygiene resources.

What are representative PBZ samples?

Personal Breathing Zone samples are considered representative under the following two possible alternative conditions:

- ECEL When one or more samples are taken for at least one potentially exposed person in each job classification in a work area during every shift, and the sampled person is expected to have the highest exposure.
- 2. EPA STEL When one or more samples are taken which indicate the highest likely 15-minute exposures during such operations for at least one potentially exposed person in each job classification in the work area during every work shift, and the person sampled is expected to have the highest methylene chloride exposure.

Additional Monitoring

Additional exposure monitoring is required after any change that may introduce additional sources of methylene chloride exposure or otherwise result in increased exposure to methylene chloride compared to the most recent monitoring event (see § 751.109(2)(i)). Examples include changes in production, use rate, process, control equipment, or work practices and start-up, shutdown, or malfunction of facility equipment.

This additional exposure monitoring may affect the frequency of periodic monitoring. The required additional exposure monitoring should not delay implementation of any necessary cleanup or other remedial action to reduce the exposures to potentially

exposed persons. For additional information regarding additional monitoring, see Unit IV.4.e of the methylene chloride rule.

Notification of WCPP Monitoring Results

Owners and operators are required to inform potentially exposed persons of monitoring results within 15 working days after receipt of the results of any exposure monitoring. Results should be shared individually or publicly in writing in an appropriate and accessible location outside of the regulated area, and may need to be provided in multiple languages.

The notice of results must include the following (see § 751.109(d)(5)):

- The methylene chloride ECEL, action level, and EPA STEL and significance of each in plain language;
- Exposure monitoring results;
- Whether the airborne concentration of methylene chloride exceeds the ECEL action level, ECEL, or the EPA STEL;
- Description of actions taken to reduce exposure below the ECEL or EPA STEL, if exceeded;
- Explanation of any required respiratory protection provided;
- Quantity, location, and manner of methylene chloride use at the time of monitoring; and
- Identified releases of methylene chloride.

E. What is a regulated area, and how is it established?

A regulated area distinguishes places where airborne concentrations of a specific chemical substance exceed, or there is a reasonable possibility they may exceed, the applicable ECEL or the EPA STEL (see § 751.109(d)(5)(ii)). It is established or marked by the owner or operator as part of the WCPP.

Regulated areas must be established within 3 months following receipt of initial monitoring data or by August 1, 2025 (see § 751.109(c)).

To establish a regulated area, owners and operators must mark areas from the rest of the workplace in any manner that adequately establishes and alerts potentially exposed persons to the boundaries of the area and minimizes the number of authorized persons exposed to methylene chloride within the regulated area (see § 751.109(3)(iii)). Owners and operators must consider both the ECEL and the EPA STEL.



Marking the regulated area and alerting potentially exposed persons to the boundaries of the area can be accomplished through combinations of administrative controls including highly visible signifiers, in multiple languages as appropriate (e.g., when potentially exposed persons who are primarily Spanish-speaking are present, owners and operators should post additional highly visible signifiers in Spanish), placed in conspicuous areas.

Once the regulated area is established, there are several requirements, including:

- The owner or operator is required to restrict access to the regulated area by any person that lacks proper training, lacks personal protective equipment, if required, or is otherwise unauthorized to enter.
- Owners and operators must provide respiratory protection sufficient to reduce inhalation exposures to below the ECEL or EPA STEL to all potentially exposed persons in the regulated area either within 3 months after receipt of the results of any exposure monitoring OR within 15 months after the date of publication of the final rule, by August 1, 2025 (see § 751.109(f)).

F. What are the training requirements?

Trainings must be provided prior to a job assignment and be presented in an understandable manner (i.e., plain language presentation based on languages spoken by potentially exposed persons) to potentially exposed persons that are allowed to enter the regulated area. This training aligns with the employee information and training component of the OSHA methylene chloride standard (See 29 CFR 1910.1052(I)(1) through (6)). If PPE is relevant in the regulated area, training consistent with the OSHA PPE standard at 1910.132(f) must be provided. If respiratory protection is required in the regulated area, training consistent with OSHA's respiratory protection standard 1910.134(k) must be provided. For more information, see § 751.109(h).

G. What is the exposure control plan?

The methylene chloride rule requires owners and operators to develop an exposure control plan as part of the WCPP (see § 751.109(e)). The exposure control plan documents actions taken to mitigate occupational exposures and comply with the WCPP. The plan may be prepared as a stand-alone document or part of an existing industrial hygiene program. Owners and

operators are encouraged to include potentially exposed persons in the development of the exposure control plan. Additionally, owners and operators may use one exposure control plan for compliance with multiple TSCA 6(a) regulations, so long as that exposure control plan meets the requirements of each individual chemical.

The exposure control plan must describe efforts that will be taken to protect potentially exposed persons through use of the hierarchy of controls (see § 751.109(e)(2)(i)). The hierarchy of controls specifies that owners and operators should first attempt elimination, substitution, then engineering controls, administrative controls, and work practices to manage methylene chloride exposure to the extent feasible prior to requiring use of PPE as a means of controlling inhalation exposures. The hierarchy of controls is detailed below and PPE is discussed in Unit IV.H.

In accordance with § 751.109(e)(2)(i), the following elements are required in an exposure control plan:

- Identification of possible exposure control measures and the rationale for using or not using available exposure controls in the sequence described by hierarchy of controls;
- For the exposure controls not selected, documentation of the efforts identifying why these are not feasible, not effective, or otherwise not implemented;
- A description of actions the owner or operator must take to implement exposure controls selected, including proper installation, regular inspections, maintenance, training, or other steps taken;
- A description of regulated areas, how they are marked, and persons authorized to enter the regulated areas;
- A description of activities conducted by the owner or operator to review and update the exposure control plan to ensure effectiveness of the exposure controls, identify any necessary updates to the exposure controls, and confirm that all persons are properly implementing the exposure controls; and
- An explanation of the procedures for responding to any change that may reasonably be expected to introduce additional sources of exposure to methylene chloride, or otherwise result in increased exposure to methylene chloride, including procedures for implementing corrective actions to mitigate exposure to methylene chloride.



In addition to the elements required to be in an exposure control plan, owners and operators must also do the following:

- Maintain the effectiveness of any engineering controls, administrative controls, or work practices instituted as part of the exposure control plan;
- Review and update the exposure control plan as necessary, and at least every 5 years. Updates should reflect any significant changes in the status of the approach to compliance with the exposure control requirements; and
- Make the exposure control plan and associated records available to potentially exposed persons (see section below) and EPA enforcement as requested.

How does the exposure control plan work with multiple chemicals?

At a facility that builds widgets, the owner or operator of the facility maintains an inventory of methylene chloride and a hypothetical Chemical Z. Both chemicals are regulated by TSCA Section 6 rules and a WCPP is required for each, including an exposure control plan. The required elements on the exposure control plan for each rule can be wrapped into an existing chemical management program.

In this example, there are differences in the exposure controls for each chemical as they are used in different processes. For example, the engineering control measures differ between the two chemicals based on implementation feasibility, and frequency of the exposure. However, there are similarities shared across the two chemicals; for example, respiratory protection is not required in a regulated area where both chemicals are used because the engineering controls keeps inhalation exposures below the ECEL for both chemicals.

While the owner/operator has drawn different conclusions based on the exposure profile and available controls, potentially exposed persons will be able to review the rationales for the two chemicals together in the context of one chemical management program.

The EPA requires that in the exposure control plan, owners and operators look to the sequence of exposure reductions in the hierarchy of controls to identify possible exposure control measures, and to provide a rationale for whether these measures have been implemented.

For more information on the hierarchy of controls, visit National Institute for Occupational Safety and Health (NIOSH) website:

https://www.cdc.gov/niosh/topics/hierarchy/default.html.

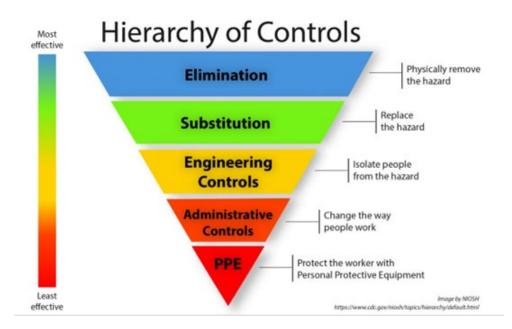
The hierarchy of controls has five levels, ordered based on general effectiveness. See diagram below, used with permission from NIOSH¹⁸.

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The Hierarchy of Controls

¹⁸ https://www.cdc.gov/niosh/topics/hierarchy/default.html





For methylene chloride, owners and operators must follow the hierarchy of controls, and should consider the following examples:

- Elimination Remove methylene chloride at the source. This could include changing the work process to stop using methylene chloride.
 Elimination is the preferred solution to protect potentially exposed persons because no exposure can occur.
- Substitution Use a safer alternative to methylene chloride. When considering a substitute, compare the potential risks of the substitute to those of methylene chloride. This review should consider how the substitute will combine with other agents in the workplace. Effective substitutes reduce the potential for harmful effects and do not create new risks. The EPA recommends careful review of the available information on potential substitutes (including the Alternatives Assessment 19 that accompanies the methylene chloride rule) to avoid a substitute chemical that might later be found to present unreasonable risks or be subject to regulation (sometimes referred to as a "regrettable substitution").
- Engineering controls Engineering controls can include modifying equipment or the workspace, using local exhaust ventilation, protective barriers, and more to remove or prevent methylene chloride exposure. Effective engineering controls:
 - Remove or block methylene chloride at the source before it comes into contact with the worker:
 - Prevent users from modifying or interfering with the engineering control itself;
 - Need minimal user input; and
 - Operate correctly without interfering with the work process or making it more difficult.
- Administrative controls/Work practices –
 Establish work practices that reduce the duration,
 frequency, or intensity of methylene chloride
 exposure. This may include work process training,
 ensuring adequate rest breaks, or limiting access
 to areas where methylene chloride exposure may
 be possible. Establishment of a regulated area is
 an administrative control. However, though it may
 be appropriate in other circumstances, owners and
 operators may not use rotating work schedules to
 comply with the methylene chloride ECEL 8-hour
 TWA (see § 751.109(e)(2)(ii)(A)).

¹⁹ Alternatives Assessment for Methylene Chloride; Rulemaking under TSCA section 6(a): https://www.regulations.gov/document/EPA-HQ-OPPT-2020-0465-0178



• Personal protective equipment (PPE) – PPE is equipment worn to reduce or minimize exposure to hazards. Examples of PPE include gloves, safety glasses, and respirators. PPE use should be accompanied by a PPE program, which includes such elements as PPE selection and use training, PPE inspection and replacement schedules, and effectiveness monitoring. Owners and operators should not rely on PPE alone to control hazards when other effective control options are available. See more information in "Respiratory Protection and PPE" in Unit IV.I of this guide.

Who needs to know about the exposure control plan?

Owners and operators must make the exposure control plan and its related records (e.g., exposure monitoring, respiratory protection program implementation, dermal protection program implementation) available to potentially exposed persons. The exposure control plan must be reviewed and updated as necessary, and at least every 5 years, to reflect any significant changes in the status of the owner or operator's approach to compliance, in accordance with § 751.109(e)(2)(ii)(C). Owners and operators must make available this information (e.g. the exposure control plan and monitoring information) plus additional records to EPA for enforcement purposes upon request.

Owners and operators must notify potentially exposed persons within 30 days of the date of the exposure control plan's completion and after any subsequent updates, and at least annually thereafter in accordance with § 751.109(e)(2)(iii)(B). Upon request by the potentially exposed person, the owner or operator must provide the requested records within 15 days. If the owner or operator is not able to provide the requested records within 15 days, they must notify the potentially exposed person within those 15 days explaining the reason for the delay and providing the earliest date when the record(s) can be made available, in accordance with § 751.109(e)(2)(iii)(C).

H. When should respiratory protection and personal protective equipment (PPE) be used?

Respiratory protection or PPE should be used where the feasible elimination, substitution, engineering, and administrative controls do not reduce exposures below the ECEL or EPA STEL. In accordance with the hierarchy of controls, the EPA requires that owners and operators implementing the WCPP use elimination, substitution, engineering controls, administrative controls, and work practices prior to turning to respiratory protection (i.e., respirators) as a means of reducing inhalation exposures below the EPA's ECEL or STEL, see also IV.B.5 in the methylene chloride rule. Respiratory protection or PPE is meant to supplement other efforts to manage exposure, as described in the previous section. Use the following information to select the appropriate respiratory protection or PPE in tandem with other efforts to control exposure.

Respiratory Protection

Owner/operators must institute engineering, work practice, and administrative controls and maintain their effectiveness to reduce employee exposure to or below the ECEL. If respiratory protection is needed, supplied-air respirators must be used for methylene chloride. This rule does NOT permit the use of air-purifying respirators due to the short service life of chemical cartridges when used for methylene chloride exposure. For more information, see § 751.109(f)(2) and OSHA 1910.134(a),

The respiratory protection measures are based on the measured concentration of methylene chloride, as part of the initial monitoring, periodic monitoring, or other additional monitoring. Table 5 (based on § 751.109(f)(2)) summarizes the requirements for respiratory protection.

Dermal Protection

Owners and operators must provide chemically resistant gloves and training on proper glove use to potential exposed persons for tasks where dermal exposure may occur (see § 751.109(g)). Training should include glove selection (type, material), expected duration of glove effectiveness, actions to take when glove integrity is compromised, storage requirements, procedure for glove removal and disposal, and chemical hazards. This specific activity training must be for tasks where dermal exposure can be expected to occur. For more information, see § 751.109(g) and OSHA 1910.132(f).

²⁰ https://www.federalregister.gov/documents/2024/05/08/2024-09606/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca



Table 5: Respiratory Protection Conditions and Requirements

Concentration Condition	Minimum Required Respirator Protection: Respirators Must Be NIOSH Approved®
At or below the ECEL and EPA STEL	No respirator required
Above ECEL (2 ppm) and less than or equal to 50 ppm (25 times the ECEL)	Any Supplied-Air Respirator (SAR) or airline respirator in a continuous-flow mode equipped with a loose-fitting facepiece or helmet/hood (assigned protection factor (APF) 25)
Above 50 ppm and less than or equal to	Either:
100 ppm (50 times the ECEL)	Any SAR or airline respirator in a demand mode equipped with a full facepiece (APF 50); or
	Any Self-Contained Breathing Apparatus (SCBA) in demand-mode equipped with a full facepiece or helmet/hood (APF 50).
Unknown concentration or at any value	One of:
above 100 ppm and up to 2,000 ppm (1,000 times the ECEL)	Any SAR or Airline Respirator in a continuous-flow mode equipped with a full facepiece or certified helmet/hood (APF 1,000); or
	Any SAR or Airline Respirator in pressure-demand or other positive-pressure mode equipped with a full facepiece (APF 1,000); or
	Any SCBA in a pressure-demand or other positive-pressure mode equipped with a full facepiece or certified helmet/hood (APF 10,000).

I. What are the additional components of the WCPP?

Workplace Protection

The EPA encourages owners and operators to consult with potentially exposed persons when developing the exposure control plan and any necessary PPE program. The EPA requires owners/operators to provide potentially exposed persons regular access to the following:

- Exposure control plans;
- Exposure monitoring records; and
- Dermal and respiratory PPE program implementation (such as fit-testing and other requirements).

Keep in mind that owners and operators must inform potentially exposed persons of monitoring results within 15 working days (see "Notification of WCPP Monitoring Results" above and § 751.109(d)(5)).

WCPP Recordkeeping

Records are an important component of demonstrating compliance with the WCPP provisions. Owners and operators must retain compliance records for 5 years, and they must be available upon request for inspection. Records may be kept in the most convenient form for the owner or operator (electronic or paper). For additional information on WCPP recordkeeping see Unit IV.E.1 in the methylene chloride rule.²¹

²¹ https://www.federalregister.gov/documents/2024/05/08/2024-09606/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca



For each monitoring event, the EPA requires that the owner or operator record the following information (similar to OSHA under 29 CFR 1910.1052(m)(2)(ii)):

- Sampling date(s);
- Operations involving exposure;
- Sampling and analytical methods;
- Number of samples, durations, and results of each sample;
- Type of respirator and PPE worn (if any);
- Exposed employees' names, work shifts, and job classifications; and
- Exposure of all the potentially exposed persons represented by monitoring, indicating which potentially exposed persons were actually monitored.

The EPA also requires documentation of the following information whenever monitoring for the WCPP is required (see § 751.113(d)):

- All measurements of the conditions that may affect the monitoring results (such as temperatures, humidity, ventilation rates, monitoring equipment type, and calibration dates);
- All other potentially exposed persons whose exposure is intended to be represented by the sampling;
- Use of established analytical methods with appropriate limits of detection and accuracy to demonstrate compliance with initial and periodic monitoring requirements;
- Compliance with the Good Laboratory Practice Standards at 40 CFR Part 792 (see https://www.ecfr.gov/current/title-40/chapter-l/subchapter-R/part-792) or any accredited lab including AIHA (e.g., AIHA LAP, LLC Policy Module 2A/B/E of Revision 17.3), or other analogous industry-recognized program; and
- Information regarding air monitoring equipment, including type, maintenance, calibrations, performance tests, limits of detection, and any malfunctions.

J. How does this rule apply to use of methylene chloride as a laboratory chemical?

The methylene chloride rule specifies that industrial and commercial use of methylene chloride as a laboratory chemical will continue with strict protections under the WCPP (see § 751.109 or Unit IV.A.1 of the final rule).

This includes the use of methylene chloride in a laboratory process or in specialized laboratory equipment for instrument calibration and maintenance, chemical analysis, chemical synthesis, extracting and purifying other chemicals, dissolving other substances, executing research, development, test and evaluation methods, and similar activities, such as use as a solvent, reagent, analytical standard, or other experimental use. This also includes the use of methylene chloride in EPA analytical methods.

Who does this apply to?

For the purposes of the methylene chloride rule, the EPA emphasizes that industrial and commercial use of methylene chloride as a laboratory chemical applies to research, government, and academic institutions, as well as to industrial and commercial laboratories. Laboratory use of methylene chloride includes Department of Defense sampling, examining, and testing of solid propellants, detail specifications of nitrocellulose, and laboratory analysis for TNT conformity with TNT acidity requirements.

What requirements must laboratories follow under the methylene chloride rule?

The industrial and commercial use of methylene chloride as a laboratory chemical is subject to the WCPP, as noted in <u>Unit IV</u> of this guide.

Use of methylene chloride that meets the criteria above, regardless of scale or volume, is regulated by the WCPP. The WCPP includes two occupational exposure limits to address unreasonable risk from methylene chloride, and ancillary requirements to support those limits, including initial and periodic monitoring, a requirement to reduce exposures to the extent feasible according to the NIOSH hierarchy of controls, and PPE guidance to address remaining risks above the occupational exposure limits. For more information, see Unit IV. 1 of the methylene chloride rule.



How can current practices in laboratories aid with complying with the methylene chloride rule?

Laboratories may be required to be in compliance with the OSHA chemical-specific methylene chloride standard 29 CFR 1910.1052 and the OSHA laboratory standard at 29 CFR 1910.1450. The EPA's methylene chloride rule does not modify those requirements. EPA has confidence that a properly designed and functioning fume hood are key measures to mitigate occupational exposure to methylene chloride in laboratories (see 88 FR 28284 and FRL-8155-02-OCSPP). The measures in the WCPP will address the unreasonable risk identified by EPA from methylene chloride laboratory use.

Owners and operators of laboratories must conduct initial monitoring to demonstrate the extent to which fume hoods mitigate exposure to methylene chloride, and follow appropriate periodic monitoring based on that result. This monitoring could occur as infrequently as every 5 years if monitoring is below the action level.

An institution's existing Chemical Hygiene Plan may be augmented to include the details needed for the methylene chloride WCPP exposure control plan. In the event that it is not feasible to mitigate occupational exposure below the ECEL value through exposure controls and work practices, laboratories must consider personal protective equipment such as respiratory protection to mitigate worker exposure to methylene chloride.



V: Interim Workplace Protections for Commercial Use of Methylene Chloride in Furniture Refinishing

The EPA acknowledges that for particular circumstances, there is no technically or economically feasible, safer alternative to methylene chloride currently available. Therefore, to provide a reasonable and appropriate transition period, (consistent with TSCA sections 6(c)(2)(C) and 6(d)(1)(E), the EPA has provided an extended timeframe before prohibition on commercial use of methylene chloride specifically for removing coatings from wooden furniture and other items that are of artistic, historic, or cultural significance. Prohibition on this use of methylene chloride will occur 5 years from publication of the final rule, or May 8, 2029. Until that time, to reduce worker exposure, the EPA requires owners and operators to establish specific workplace controls for this use (see § 751.117). These interim requirements under 751.117 are separate and distinct from the Workplace Chemical Protection Program (WCPP) regulations.

A. Timeframes

Anyone using methylene chloride for this specific type of coating removal must establish workplace protections by July 8, 2024, in accordance with § 751.117. These interim workplace protections will be in place for 5 years, or until May 8, 2029. After May 8, 2029, manufacturing (including import), processing, distributing, or commercial use of methylene chloride for this use is prohibited.

The EPA emphasizes that the delay on the prohibition of commercial use of methylene chloride for this specific use is limited to removing coatings from wooden furniture and other wooden items that are of artistic, historic, or cultural significance. The EPA has prohibited commercial use of methylene chloride for all other paint and coating removal. See <u>Unit VI</u> for more details, and § 751.117).

B. Interim Workplace Protections

Instead of the WCPP, some conditions of use include interim workplace protections to reduce worker exposures. During the industrial and commercial use of methylene chloride (i.e., including any methylene chloride-containing products) for the refinishing of

wooden furniture, decorative pieces, and architectural fixtures of artistic, cultural, or historic value, all persons must, in accordance with § 751.117:

- Establish a regulated area including initial monitoring in accordance with § 751.109(c)(3);
- Use local exhaust ventilation, both bringing air in from outside and pulling methylene chloride vapors away from the potentially exposed person;
- Provide NIOSH Approved® minimum respiratory protection:
 - Use any SAR or airline respirator in a demand mode equipped with a full facepiece (APF 50) or any SCBA in demand-mode equipped with a full facepiece or helmet/hood (APF 50); or
 - Use the appropriate air-supplied respirator based on initial monitoring as identified in § 751.109 (f)(2); and
- Comply with the recordkeeping requirements in § 751.113(q).

Note that methylene chloride vapors are heavier than air and naturally descend under normal conditions. Local exhaust ventilation placed underneath a workstation (such as a flow-over tray) that pulls methylene chloride vapors down and away from the tray assists this natural tendency, thus mitigating methylene chloride vapors from reaching the user's personal breathing zone. Local exhaust systems pulling methylene chloride vapors away from workers must prevent methylene chloride vapors from entering or crossing a potentially exposed person's personal breathing zone (see § 751.117).

In the preamble, EPA provided additional context for "bringing air in from outside" – referring to bringing air in from outside of the workspace, consistent with the ventilation delivering air from outside of the regulated area.

Use only air-supplied respirators with methylene chloride; other types of respirators (e.g., air-purifying respirators or cartridge respirators) will not protect you. See more in "Respiratory Protection" in Unit IV.I of this guide.



VI: Prohibitions of Methylene Chloride

A. Overview of prohibitions of methylene chloride

This section provides guidance on the prohibitions that the EPA has put into place to address unreasonable risks from consumer and commercial use of methylene chloride. The EPA prohibits manufacturing (including importing), processing, or distributing in commerce of methylene chloride for all consumer and most industrial and commercial uses. The requirements for small entities are the same as for other entities.

B. What conditions of use are prohibited?

Although some conditions of use can continue (see Units <u>IV</u> and <u>V)</u>, most conditions of use of methylene chloride are prohibited, including, but not limited to:

- Aerosol and vapor degreasing;
- Paint, coating, adhesive, and caulk removers;
- Cold cleaning or degreasing;
- Use in lubricants, greases, and paints;
- · Use as a propellant and blowing agent; and
- The upstream manufacture, processing, and distribution in commerce of methylene chloride for those uses.

All conditions of use of methylene chloride other than those listed in § 751.105 (see also <u>Unit IV</u>) are prohibited.

C. How do I comply with prohibition requirements?

If you are a manufacturer (including importer), processor, or distributor in commerce of methylene chloride or methylene chloride-containing products, you should ensure compliance with the relevant prohibitions before the dates listed below by, for example, discontinuing or reformulating any such products or ceasing to make such products available to consumers (see the <u>FAQs</u> for more information). The EPA recognizes that this requirement could result in stranded products and some additional cost for disposal of such products.

Requirements for recordkeeping and downstream notification may also be relevant for you. Please see Unit VII for more details.

D. What are the timeframes for the prohibitions?

The final rule imposes prohibitions in a staggered timeframe, beginning at the top of the supply chain. See Table 2 (on the next page) for more information. There are some conditions of use with prohibitions with extended timeframes in recognition of the challenging and particular circumstances faced by furniture refinishers engaged in restoring and removing coatings from wooden pieces of artistic, cultural, or historic value and those using methylene chloride in sealants and adhesives in the aerospace and defense sector.



Table 2: Prohibition Timeframe Requirements^a

Requirement		Compliance Date				
Prohibition on distributing to retailers						
Distributors	After February 3, 2025, all persons are prohibited from distributing in commerce (including making available) methylene chloride, including any methylene chloride-containing products, to retailers for any use. In other words, distributors cannot sell methylene chloride products to any retailers after February 3, 2025. See Unit IV and § 751.107(b)(1).	February 3, 2025				
Prohibition on distributing by retailers						
Retailers	After May 5, 2025, all retailers are prohibited from distributing in commerce (including making available) methylene chloride, including any methylene chloride-containing products, for any use. This means that retailers cannot distribute methylene chloride products to any customer, including to commercial users, after May 5, 2025. See Unit IV and § 751.107(b)(2).	May 5, 2025				
Prohibition on manufacturing						
Manufacturers (including importers)	After May 5, 2025, all persons are prohibited from manufacturing (including import) methylene chloride except for conditions of use that will continue under the WCPP (see <u>Unit IV</u> and § 751.107(b)(3)).	May 5, 2025				
Prohibition on processing						
Processors	After August 1, 2025, all persons are prohibited from processing methylene chloride, including any methylene chloride-containing products, except for conditions of use that will continue under the WCPP (see <u>Unit IV</u> and § 751.107(b)(4)).	August 1, 2025				
Prohibition on all	distributors other than retailers					
Distributors	After January 28, 2026, all persons are prohibited from distributing in commerce (including making available) methylene chloride, including any methylene chloride-containing products, except for conditions of use that will continue under the WCPP (see Unit IV and § 751.107(b)(5)).	January 28, 2026				
Prohibition on in	Prohibition on industrial and commercial use					
Industrial and commercial users	After April 28, 2026, all persons are prohibited from industrial or commercial use of methylene chloride, including any methylene chloride containing products, except for conditions of use that will continue under the WCPP (see Unit IV and § 751.107(b)(6)).	April 28, 2026				



Requirement Compliance Date

Prohibition with extended timeframe on industrial and commercial use for paint and coating removal for refinishing of wooden furniture, decorative pieces, and architectural fixtures of artistic, cultural, or historic significance

Manufacturers (including importers), processors, distributors, and commercial users After May 8, 2029, all persons are prohibited from manufacturing (including import), processing, distribution in commerce, or use of methylene chloride, including any methylene chloride containing products, for industrial or commercial use for paint and coating removal for refinishing of wooden furniture, decorative pieces, and architectural fixtures of artistic, cultural, or historic significance, with interim requirements. See <u>Unit IV</u> and § 751.107(b)(8) for more details.

May 8, 2029

Prohibition with extended timeframe on industrial or commercial use for adhesives and sealants in aircraft, space vehicle, and turbine applications for structural and safety critical non-structural applications

Manufacturers (including importers), processors, distributors, and commercial users After May 8, 2029, all persons are prohibited from manufacturing (including import), processing, distribution in commerce, or use of methylene chloride, including any methylene chloride-containing products, for industrial or commercial use for adhesives and sealants in aircraft, space vehicle, and turbine applications for structural and safety critical non-structural applications. See <u>Unit IV</u> and § 751.107(b)(9) for more details.

May 8, 2029

^a There is an additional prohibition with extended timeframe for industrial or commercial use of methylene chloride in an emergency by NASA or its contractors. Details on this prohibition with extended timeframe are outside the scope of this guide. See Unit IV.F. of the final rule (see https://www.federalregister.gov/documents/2024/05/08/2024-09606/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca) for more information.



VII: Recordkeeping and Downstream Notification

A. Recordkeeping: Overview and requirements

If you manufacture (including import), process, distribute, or use methylene chloride, there are requirements for recordkeeping regarding methylene chloride. These are in addition to any WCPP recordkeeping you must maintain, which is described earlier.

Owners and operators are required to maintain ordinary business records that demonstrate compliance with the EPA's regulation of methylene chloride under TSCA. These records are necessary to demonstrate that methylene chloride is being manufactured, processed, distributed, used, or disposed of only in compliance with the restrictions of the methylene chloride rule.

These records must be maintained for 5 years from the date of the record's creation (see § 751.113(h)). This requirement begins at the effective date of the EPA's methylene chloride rule on **July 8**, **2024**.

Examples of ordinary business records:

- Bills-of-lading
- Invoices
- Receipts

Note that this requirement expands the recordkeeping requirements promulgated in the EPA's 2019 methylene chloride rule on consumer paint and coating removal previously at https://www.ecfr.gov/current/title-40/chapter-l/subchapter-R/part-751#subpart-B.

B. Import certification and export notification

Persons who import methylene chloride in bulk form, or as part of a mixture, are subject to TSCA section 13 import certification requirements and the corresponding regulations at 19 CFR 12.118 through 12.127;²³ see also 19 CFR 127.28.

Those persons must certify that the shipment of methylene chloride complies with all applicable rules and orders under TSCA. The EPA policy in support of

import certification appears at <u>40 CFR Part 707</u>, <u>subpart B</u>.²⁴ In addition, any persons who export or intend to export a chemical substance that is the subject of this final rule are subject to the export notification provisions of TSCA section 12(b) (15 U.S.C. 2611(b)), and must comply with the export notification requirements in <u>40 CFR Part 707</u>, <u>subpart D</u>.²⁵

C. Downstream notification

For conditions of use that are not prohibited under the methylene chloride rule, the EPA requires that manufacturers (including importers), processors, and distributors, excluding retailers, of methylene chloride and methylene chloride-containing products provide downstream notification of certain prohibitions by updating language in SDSs.

Why is downstream notification important?

Downstream notification informs processors, distributors, and users of the restrictions on methylene chloride under TSCA. This ensures that essential information on regulatory requirements is available throughout the supply chain and provides information to commercial end-users about allowable uses of methylene chloride. This helps prevent continuation of prohibited uses of methylene chloride.

What do I have to do?

For downstream notification, any product containing methylene chloride must add the text below (see box) to two places in the product SDS (to section 1(c) and section 15). This text describes the restrictions in the rule and must be provided in writing prior to or with the shipment of the methylene chloride (see § 751.111).

If you manufacture (including import), process, or distribute in commerce methylene chloride, for any use, you must update relevant SDSs by **October 7**, **2024**, for manufacturers and **December 4**, **2024**, for processor and distributors.

²² https://www.ecfr.gov/current/title-40/chapter-l/subchapter-R/part-751#subpart-B

²³ https://www.ecfr.gov/current/title-19/chapter-l/part-12

²⁴ https://www.ecfr.gov/current/title-40/chapter-I/subchapter-R/part-707/subpart-B

²⁵ https://www.ecfr.gov/current/title-40/chapter-l/subchapter-R/part-707/subpart-D



Note: Products that include methylene chloride below 0.1% by weight are not subject to the restrictions and prohibitions outlined in this regulation (see § 751.101(b)).

What are Safety Data Sheets (SDSs)?

Safety Data Sheets (SDSs) are required under OSHA's Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)). They include information about the chemical's properties; the physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the chemical. For more detailed information on SDSs, visit OSHA's HCS SDS page (see https://www.osha.gov/publications/osha3514.html).

Downstream notification must occur by inserting the following text in the SDS provided with the methylene chloride or any product containing methylene chloride. Updates must be made to section 1(c) and section 15 of the SDS:

After February 3, 2025, this chemical substance (as defined in TSCA section 3(2))/product cannot be distributed in commerce to retailers. After January 28, 2026, this chemical substance (as defined in TSCA section 3(2))/product is and can only be distributed in commerce or processed with a concentration of methylene chloride equal to or greater than 0.1% by weight for the following purposes: (1) Processing as a reactant; (2) Processing for incorporation into a formulation, mixture, or reaction product; (3) Processing for repackaging; (4) Processing for recycling; (5) Industrial or commercial use as a laboratory chemical; (6) Industrial or commercial use as a bonding agent for solvent welding; (7) Industrial and commercial use as a paint and coating remover from safety critical, corrosion-sensitive components of aircraft and spacecraft; (8) Industrial and commercial use as a processing aid; (9) Industrial and commercial use for plastic and rubber products manufacturing; (10) Industrial and commercial use as a solvent that becomes part of a formulation or mixture, where that formulation or mixture will be used inside a manufacturing process, and the solvent (methylene chloride) will be reclaimed; (11) Industrial and commercial use in the refinishing for wooden furniture, decorative pieces, and architectural fixtures of artistic, cultural or historic value until May 8, 2029; (12) Industrial and commercial use in adhesives and sealants in aircraft, space vehicle, and turbine applications for structural and safety critical non-structural applications until May 8, 2029; (13) Disposal; and (14) Export.



VIII: Violations for Non-Compliance

This unit describes the violations for non-compliance with TSCA, including for small businesses.

What if the EPA discovers a violation? Α.

In accordance with section 15 of TSCA, it is unlawful to fail or refuse to comply with any requirement under TSCA, or with any rule promulgated under TSCA. Therefore, any failure to comply with the final rule would be a violation of section 15 of TSCA. It is also unlawful under section 15 of TSCA for any person to use for commercial purposes a chemical substance or mixture which such person knew or had reason to know was manufactured, processed, or distributed in commerce in violation of TSCA section 6. In addition, under section 15 of TSCA, it is unlawful for any person to: (1) fail or refuse to establish or maintain records as required by the final rule or other regulations promulgated under this chapter; (2) fail or refuse to permit access to or copying of records, as required by TSCA; or (3) fail or refuse to permit entry or inspection as required by section 11 of TSCA. Violators of the regulations under TSCA section 6 may be subject to both civil and criminal liability. Under the penalty provision of section 16 of TSCA, any person who violates section 15 could be subject to a civil penalty for each violation. Each day in violation of the final rule could constitute a separate violation. Knowing or willful violations could lead to the imposition of criminal penalties for each day of violation and imprisonment. In addition, other remedies are available to the EPA under TSCA. In addition, it is unlawful to knowingly and willfully make or submit in writing materially false, fictitious, or fraudulent statements.

Individuals, as well as corporations, could be subject to enforcement actions. Sections 15 and 16 of TSCA apply to "any person" who violates various provisions of TSCA. The EPA may, at its discretion, proceed against individuals as well as companies.

В. How does the EPA address violations by small businesses?

To maximize compliance, the EPA implements a balanced program of compliance assistance, compliance incentives, and traditional law enforcement. The EPA knows that small businesses that comply with complicated new statutes or rules want to do the right thing, but may lack the requisite knowledge, resources, or skills. Compliance assistance information and technical advice helps small businesses to understand and meet their environmental obligations. Compliance incentives, such as the EPA's Small Business Policy, apply to businesses with 100 or fewer employees and encourage persons to voluntarily discover, disclose, and correct violations before they are identified by the government (more information about the EPA's Small Business Policy is available at https://www.epa.gov/enforcement/small-businessesand-enforcement). The EPA's enforcement program is aimed at protecting the public by ensuring compliance with regulations under TSCA section 6.

The EPA encourages small businesses to work with the Agency to discover, disclose, and correct violations. The EPA's Audit Policy, which provides incentives for regulated entities to voluntarily discover and fix violations of federal environmental laws and regulations, may be helpful for this process. The Agency has developed self-disclosure, small business, and small community policies to mitigate penalties for small and large entities that cooperate with the EPA to address compliance problems. For more information on compliance assistance and other EPA programs for small businesses, please contact the EPA's Small Business Ombudsman Program via their toll-free hotline at 800-368-5888 or by email at asbo@epa.gov. You can also find technical environmental compliance assistance in your state through the Small Business Environmental Assistance Program here: States | National Small Business Environmental Program (nationalsbeap.org)



Frequently Asked Questions (FAQs)

I see a "TSCA section 6(g) exemption" in the final rule. What is this?

The TSCA section 6(g) exemption for the emergency use of methylene chloride is provided to NASA in furtherance of their mission. Only NASA and its contractors are exempted for a narrow set of conditions of use. This exemption is beyond the scope of this compliance guide; additional detail about the exemption is found in Unit IV.F. of the final rule.

Where can I go if I have questions or need further assistance?

Please contact the EPA's TSCA Hotline with questions by telephone at (202) 554-1404 or by email at tsca-hotline@epa.gov or MethyleneChlorideTSCA@epa.gov. For small businesses, please see the EPA's Small Business Ombudsman Website. Small businesses may find the national Small Business Environmental Assistance Program (SBEAP) helpful for providing resources and information about this methylene chloride regulation. The SBEAP site is accessible at https://nationalsbeap.org/.

What uses of methylene chloride are covered by this regulation?

In the 2020 Risk Evaluation for Methylene Chloride, the EPA identified and assessed all known, intended, and reasonably foreseen industrial, commercial, and consumer uses of methylene chloride (the use of methylene chloride in consumer paint and coating removers was subject to separate action under TSCA section 6 (84 FR 11420, March 27, 2019). ²⁶ The EPA determined that all industrial, commercial, and consumer uses of methylene chloride evaluated in the 2020 Risk Evaluation for Methylene Chloride contribute to the unreasonable risk of injury to health. As such, this rule regulates all industrial, commercial, and consumer uses of methylene chloride.

Not-for-profit entities and colleges/universities are considered commercial users and are subject to the methylene chloride rule.²⁷ If you are unsure about your specific condition of use, please contact the EPA via the information provided in the previous FAQ. Additionally, descriptions of specific commercial conditions of use can be found in Appendix B of this guide.

<u>Unit III.C.</u> of this guide provides more details on applicability of this rule. For example, the EPA's rule includes a de minimis threshold of 0.1%. Products that include methylene chloride below 0.1% by weight are not subject to the restrictions in this regulation. Additionally, the methylene chloride rule does not apply to any substance excluded from the definition of "chemical substance" under TSCA section 3(2)(B)(i) through (vi).

What if I work in a laboratory? How does the final rule apply to me?

If you work in a laboratory, your use is considered a commercial use and you are subject to the WCPP, including inhalation exposure concentration limits and related workplace exposure monitoring and exposure controls as stated in <u>Unit IV</u> of this guide, and also Units I.C. and IV.B.1.c. of the methylene chloride rule. For more specific information about what is considered a laboratory use please see <u>Appendix B of this guide</u>, "Industrial and commercial use as a laboratory chemical."

Where do I find information about reformulating products that contain methylene chloride?

Please contact the Toxics Use Reduction Institute by telephone at (978) 934-3275 for technical guidance on reformulating products that contain methylene chloride. You may also contact the EPA's TSCA Hotline with questions

²⁶ https://www.federalregister.gov/documents/2019/03/27/2019-05666/methylene-chloride-regulation-of-paint-and-coating-removal-for-consumer-use-under-tsca-section-6a

²⁷ https://www.federalregister.gov/documents/2024/05/08/2024-09606/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca



by telephone at (202) 554-1404 or by email at <u>tsca-hotline@epa.gov</u> or <u>MethyleneChlorideTSCA@epa.gov</u>. For small businesses, please see the <u>EPA's Small Business Ombudsman Website</u>.

How can I dispose of methylene chloride?

Under RCRA, the disposal standards for methylene chloride depends on the form of the waste containing the chemical. If it is hazardous waste, see the <u>small business guide for managing hazardous waste</u>. If it is not hazardous waste, see the <u>guide on industrial non-hazardous waste management</u>. For further questions, you may also contact the EPA's TSCA Hotline with questions by telephone at (202) 554-1404 or by email at <u>tsca-hotline@epa.gov</u> or <u>MethyleneChlorideTSCA@epa.gov</u>. For small businesses, please see the <u>EPA's Small Business Ombudsman Website</u>.

Is this guide updated?

This manual is the first version of the compliance guide. The EPA will ensure that the latest updated compliance guides are available at https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-methylene-chloride.

What if I become aware of a violation?

To report a violation, please see instructions at https://www.epa.gov/report-violation.

Where can I find more information?

More information on how the EPA is addressing the unreasonable risk from chemical substances is at https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-existing-chemicals-under-tsca. You may also contact the EPA's TSCA Hotline by telephone at (202) 554-1404 or by email at tsca-hotline@epa.gov.

For methylene chloride, additional information is available at https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-methylene-chloride. The regulations can be found in the Federal Register (89 FR 39254, May 8, 2024) at https://www.federalregister.gov/documents/2024/05/08/2024-09606/methylene-chloride-regulation-under-the-toxic-substances-control-act-tsca or at docket EPA-HQ-OPPT-2020-0465 at https://www.regulations.gov. You can also email MethlyeneChlorideTSCA@epa.gov with information or questions.



Appendix A: Abbreviation List and Glossary

Abbreviation List

APF assigned protection factor

CFR Code of Federal Regulations

COU Condition of use

DCM Dichloromethane

ECEL Existing chemical exposure limit

EPA Environmental Protection Agency

FR Federal Register

HCS Hazard Communication Standard

NAICS North American Industrial Classification System

NASA National Aeronautics and Space Administration

NESHAP National Emission Standards for Hazardous Air Pollutants

NIOSH National Institute for Occupational Safety and Health

OECD Organisation for Economic Co-operation and Development

OEL Occupational Exposure Limit

OSHA Occupational Safety and Health Administration

PBZ personal breathing zone

ppb parts per billion

PPE personal protective equipment

ppm parts per million

RCRA Resource Conservation and Recovery Act

TSCA Toxic Substances Control Act

TWA time-weighted average

SAR Supplied-Air Respirator

SBEAP Small Business Environmental Assistance Program

SCBA Self-Contained Breathing Apparatus

SDS Safety Data Sheet

EPA STEL short-term exposure limit

WCPP Workplace Chemical Protection Program



Glossary

Article – (§ 751.5) A manufactured item:

- (1) Which is formed to a specific shape or design during manufacture;
- (2) Which has end use function(s) dependent in whole or in part upon its shape or design during end use; and
- (3) Which has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the article, and that result from a chemical reaction that occurs upon end use of other chemical substances, mixtures, or articles; except that fluids and particles are not considered articles regardless of shape or design.

Chemical substance – Defined in TSCA section 3(2) to mean organic or inorganic substance of a particular molecular identity, including:

- (1) Any combination of such substances occurring in whole or in part as a result of a chemical reaction or occurring in nature, and
- (2) Any element or uncombined radical.

Condition of use – Defined in TSCA section 3(4) to mean the circumstances, as determined by the EPA, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.

De minimis – (§ 751.101) This is a regulatory threshold. Products that include methylene chloride below 0.1% by weight are not subject to the restrictions outlined in the regulation described by this guide.

ECEL – (§ 751.103) An Existing Chemical Exposure Limit is an airborne concentration, calculated as an eight-hour time-weighted average. When implemented along with other WCPP measures, unreasonable risk under the conditions of use identified is no longer presented at the air concentration level of the ECEL.

ECEL action level – (§ 751.103) An air concentration that indicates when certain compliance activities would need to be taken, and at which frequency, to prevent exceedances of the ECEL. For methylene chloride, the ECEL action level is a concentration of airborne methylene chloride of 1 part per million (1 ppm) calculated as an 8-hour time weighted average (TWA).

Effective date – The date on which a regulation takes effect and becomes enforceable. In this case, the effective date is July 8, 2024.

EPA Short Term Exposure Limit (STEL) – (§ 751.103) A short term exposure limit, which is an EPA regulatory limit on workplace exposure to an airborne concentration of a chemical substance, based on an exposure of less than eight hours.

Owner or operator – (§ 751.5) Any person who owns, leases, operates, controls, or supervises a workplace.

Personal breathing zone (PBZ) – A hemispheric area forward of the shoulders within a six- to nine-inch radius of a worker's nose and mouth and requires that exposure monitoring air samples be collected from within this space.

Potentially exposed person – (§ 751.5) Any person who may be exposed to a chemical substance or mixture in a workplace as a result of a condition of use of that chemical substance or mixture. The term includes workers, employees, independent contractors, employers, and all other persons in the work area where a chemical substance is present and who may be exposed to a chemical substance under the conditions of use for which a WCPP would apply.

Products – (§ 751.5) Means the chemical substance, a mixture containing the chemical substance, or any object that contains the chemical substance or mixture containing the chemical substance that is not an article.



Regulated area – (§ 751.5) An area established by the regulated entity to demarcate areas where airborne concentrations of a specific chemical substance exceed, or there is a reasonable possibility they may exceed, the applicable ECEL or EPA STEL.

Retailer - (§ 751.5) Any person or business entity that distributes or makes available products to consumers, including through e-commerce internet sales or distribution. Any distributor with at least one consumer end user customer is considered a retailer. A person who distributes in commerce or makes available a chemical substance or mixture solely to commercial or industrial end users or solely to commercial or industrial businesses is not considered a retailer.

Worker – A person who performs work in areas where methylene chloride is present, including both those who handle methylene chloride and those who do not directly handle methylene chloride.

Workplace Chemical Protection Program (WCPP) – A program to protect workers from unreasonable risk posed by exposure to a regulated substance for certain conditions of use under TSCA. The WCPP includes a suite of measures to work together to create a workplace safety program for methylene chloride. WCPP provisions include a regulatory ECEL, initial and periodic monitoring, respirator selection criteria, recordkeeping, and downstream notification for methylene chloride to ensure that workers are no longer at risk.



Appendix B: Conditions of Use Descriptions

Descriptions of the conditions of use for methylene chloride were obtained from EPA sources such as chemical data reporting use codes, the 2020 Risk Evaluation for Methylene Chloride and related documents, as well as the Organisation for Economic Co-operation and Development (OECD) harmonized use codes, and stakeholder engagements. The descriptions of the conditions of use specific to the methylene chloride rule are described below:

Manufacturing (including import) conditions of use:

- Domestic manufacturing: Manufacturing, or producing, a chemical substance within the United States (including
 manufacturing for export). Manufacture includes the extraction of a component chemical substance from a
 previously existing chemical substance or complex combination of chemical substances.
- Import: Causing a chemical substance or mixture to arrive within the customs territory of the United States.

Processing conditions of use:

- Processing as a reactant: Processing methylene chloride in chemical reactions for the manufacturing of another
 chemical substance or product, e.g., difluoromethane, also known as HFC-32, which is used in fluorocarbon
 blends for refrigerants, and bis-2,2-dinitropropyl-acetal/formal.
- **Incorporation into formulation, mixture, or reaction product**: Adding methylene chloride to a product (or product mixture) prior to further distribution of the product.
- **Repackaging**: The preparation of methylene chloride for distribution in commerce in a different form, state, or quantity. This includes transferring the chemical from a bulk container into smaller containers.
- Recycling: The process of treating generated waste streams (i.e., which would otherwise be disposed of as
 waste) that are collected, either on-site or transported to a third-party site, for commercial purposes. Waste
 solvents can be restored to a condition that permits reuse via solvent reclamation/recycling. The recovery process
 may involve an initial vapor recovery or mechanical separation step followed by distillation, purification, and final
 packaging.

Industrial and commercial conditions of use:

- Industrial and commercial use as solvent for batch vapor degreasing: The process of heating methylene
 chloride to its volatilization point and using its vapor to remove dirt, oils, greases, and other surface contaminants
 (such as drawing compounds, cutting fluids, coolants, solder flux, and lubricants) from metal parts, electronics, or
 other articles in batch open-top vapor degreasers or closed-loop vapor degreasing in industrial or commercial
 settings.
- Industrial and commercial use as a solvent for in-line vapor degreasing: The process of heating methylene
 chloride to its volatilization point and using its vapors to remove dirt, oils, greases, and other surface contaminants
 from textiles, glassware, metal surfaces, and other articles using conveyorized or continuous-web vapor
 degreasing machines in industrial or commercial settings.
- Industrial and commercial use as a solvent for cold cleaning: The industrial or commercial use of methylene chloride as a non-boiling solvent in cold-cleaning to dissolve oils, greases, and other surface contaminants from textiles, glassware, metal surfaces, and other articles.
- Industrial and commercial use as a solvent for aerosol spray degreaser/cleaner: Industrial or commercial use of methylene chloride in aerosol degreasing as an aerosolized solvent spray, typically applied from a pressurized can, to remove residual contaminants from fabricated parts or machinery (including circuit boards and electronics).
- Industrial and commercial use in adhesives, sealants, and caulks: Industrial or commercial use of methylene chloride in adhesives, sealants, and caulks to promote bonding between other substances, promote adhesion of surfaces, or prevent seepage of moisture or air.



- Industrial and commercial use in paints and coatings: Industrial or commercial use of methylene chloride in paints or coatings applied to surfaces, usually to enhance properties such as water repellency, gloss, fade resistance, ease of application, or foam prevention, etc.
- Industrial and commercial use in paint and coating removers: Industrial or commercial use of methylene
 chloride or methylene chloride-containing products applied to surfaces to remove paint, coatings, and other
 finishes and to clean the underlying surface, including but not limited to furniture refinishing.
- Industrial and commercial use as a paint and coating remover from safety critical, corrosion-sensitive
 components of aircraft and spacecraft: Industrial or commercial use of methylene chloride or methylene
 chloride-containing products applied to corrosion-sensitive surfaces to remove paint, coatings, and other finishes
 and to clean the underlying surface in safety critical components of aircraft and spacecraft.
- Commercial use in adhesives and sealants in aircraft, space vehicle, and turbine applications for structural and safety critical non-structural applications: Industrial or commercial use of methylene chloride in adhesives, sealants, and caulks to promote bonding between other substances, promote adhesion of surfaces, or prevent seepage of moisture or air in aircraft, space vehicle, and turbine applications.
- Industrial and commercial use in adhesive and caulk removers: Industrial or commercial use of methylene
 chloride in products applied to surfaces to unbind substances or remove sealants and to clean the underlying
 surface by softening adhesives, caulks, and other glues so they can be removed.
- Industrial and commercial use in metal aerosol degreasers: Industrial or commercial use of methylene chloride in aerosol degreasing as an aerosolized solvent spray, typically applied from a pressurized can, to remove residual contaminants from fabricated parts, machinery, or other metal substrate.
- Industrial and commercial use in metal non-aerosol degreasers: Industrial or commercial use of methylene chloride in liquid degreasing to remove residual contaminants from fabricated parts, machinery, or other metal substrate.
- Industrial and commercial use in finishing products for fabric, textiles, and leather: Industrial or commercial use of methylene chloride in the finishing of fabrics at fabric or textile mills, including in products that impart color or other desirable properties to fabrics or textiles. The methylene chloride may be added during the manufacturing of the textile or during the finishing, such as pressing of the fabric.
- Industrial and commercial use in automotive care products (functional fluids for air conditioners): Industrial
 or commercial use of methylene chloride for one or more operational properties in a closed system in products
 intended for automotive care and includes automotive air conditioner refrigerant and as a refrigerant with stop leak
 sealant.
- Industrial and commercial use in automotive care products (interior car care): Industrial or commercial use of
 methylene chloride in cleaning agents used to remove stains from interior carpets and textiles in automotive
 vehicles.
- Industrial and commercial use in automotive care products (degreasers): Industrial or commercial use of
 methylene chloride in liquid or aerosol degreasing to remove residual contaminants from automotive substrates
 and articles.
- Industrial and commercial use in apparel and footwear care products: Industrial or commercial use of methylene chloride in apparel and footwear care products as post-market waxes, polishes, or other media and applied to footwear, textiles, or fabrics to impart color or other desirable properties.
- Industrial and commercial use in spot removers for apparel and textiles: Industrial or commercial use of methylene chloride or methylene chloride-containing products applied from squeeze bottles, hand-held spray bottles, or spray guns, either before or after a cleaning cycle on apparel and textiles. After application, the methylene chloride or product is removed by manually scraping or flushing away the stain by using a brush, spatula, pressurized air, or steam.
- Industrial and commercial use in liquid lubricants and greases: Industrial or commercial use of methylene chloride in liquids that reduce friction, heat generation, and wear between surfaces.
- **Industrial and commercial use in spray lubricants and greases**: Industrial or commercial use of methylene chloride in sprays that reduce friction, heat generation, and wear between surfaces.



- Industrial and commercial use in aerosol degreasers and cleaners: Industrial or commercial use of methylene chloride in aerosol degreasing as an aerosolized solvent spray, typically applied from a pressurized can, to remove residual contaminants from a fabricated part or other substrate.
- Industrial and commercial use in non-aerosol degreasers and cleaners: Industrial or commercial use of methylene chloride in liquid degreasing to remove residual contaminants (such as oils, greases, and similar materials) from a fabricated part or other substrate (such as textiles, glassware, products, and other articles).
- Industrial and commercial use in cold pipe insulations: Industrial or commercial use of methylene chloride
 when typically applied in aerosolized form in products used in building and construction materials to provide
 insulation.
- Industrial and commercial use as a solvent that becomes part of a formulation or mixture: Industrial or commercial use of methylene chloride added to a product (or product mixture) in an industrial or commercial setting.
- Industrial and commercial use as a processing aid: Industrial or commercial use of methylene chloride to
 improve the processing characteristics or the operation of process equipment or to alter or buffer the pH of the
 substance or mixture, when added to a process or to a substance or mixture to be processed. Processing agents
 do not become a part of the reaction product and are not intended to affect the function of a substance or article
 created.
- Industrial and commercial use as propellant and blowing agent: Industrial or commercial use of methylene
 chloride in the production of polyurethane foam including as a blowing agent and as a solvent for cleaning
 equipment.
- Industrial and commercial use as a laboratory chemical: Industrial or commercial use of methylene chloride in a laboratory process or in specialized laboratory equipment for instrument calibration/maintenance chemical analysis, chemical synthesis, extracting and purifying other chemicals, dissolving other substances, executing research, development, test and evaluation methods, and similar activities. The use of methylene chloride in a closed-loop chiller system used to perform Federal Aviation Administration-required aviation fuel testing is considered industrial and commercial use as a laboratory chemical. The analogous use of methylene chloride in a chiller system in the Department of Defense McKinley Climactic Laboratory would likewise be considered industrial and commercial use as a laboratory chemical.
- Industrial and commercial use for electrical equipment, appliance, and component manufacturing: Industrial or commercial use of methylene chloride in electrical and electronic products; their maintenance; their manufacture, such as in the production of printed circuit boards; and at wholesalers and retail stores.
- Industrial and commercial use for plastic and rubber products manufacturing: Industrial or commercial use of methylene chloride in the manufacture and processing of plastic and rubber products, including in interfacial polymerization for polycarbonate plastic manufacturing.
- Industrial and commercial use in cellulose triacetate film production: Industrial or commercial use of methylene chloride as a chemical processor for polycarbonate resins and cellulose triacetate (photographic film).
- **Industrial and commercial use as anti-spatter welding aerosol**: Industrial or commercial use of methylene chloride in formulations to prevent spatter from adhering to metal surfaces during welding.
- Industrial or commercial use as a bonding agent for solvent welding: Industrial or commercial use of
 methylene chloride or a solvent blend including methylene chloride to chemically bond polymer substrates
 including, but not limited to, acrylic or polycarbonate, creating an airtight, waterproof, and in some cases seamless
 joint.
- Industrial and commercial use for oil and gas drilling, extraction, and support activities: Industrial or commercial use of methylene chloride in the extraction, development, and preparation of oil, liquid crude petroleum, and gas. Activities may include exploration for crude petroleum and natural gas, core sampling, drilling wells, operating separator, emulsion breakers, and distilling equipment.
- Industrial and commercial use for toys, playgrounds, and sporting equipment: Industrial or commercial use of methylene chloride in the manufacture of toys intended for children's use (and child-dedicated articles), including fabrics, textiles, and apparel (which may include stuffed toys, blankets, or comfort objects) as well as plastic articles (hard) (which may include dolls, toy cars, toy animals, or teething rings).



- Industrial and commercial use in lithographic printing plate cleaner: Industrial or commercial use of methylene chloride in lithographic printing for the cleaning of plates and rollers.
- Industrial and commercial use in carbon remover, wood floor cleaner, and brush cleaner: Industrial or
 commercial use of methylene chloride in formulated products to remove carbon and other dirt and residues from a
 variety of surfaces including floors and brushes.

Consumer conditions of use:

- Consumer use as a solvent in aerosol degreasers/cleaners: Consumer use of products containing methylene
 chloride as a solvent for cleaning or degreasing in the form of an aerosol spray degreaser or cleaner. The products
 are used to dissolve oils, greases, and similar materials from textiles, glassware, metal surfaces, and other
 articles.
- Consumer use in adhesives and sealants: Consumer use of methylene chloride in single or two-component products used to fasten other materials together or prevent the passage of liquid or gas.
- Consumer use in brush cleaners for paints and coatings: Consumer use of products containing methylene chloride to clean brushes after using them to apply paints or coatings.
- **Consumer use in adhesive and caulk removers**: Consumer use of products containing methylene chloride to remove, loosen, or deteriorate any adhesive or caulk from a substrate, such as floor adhesive removal.
- **Consumer use in metal degreasers**: Consumer use of products containing methylene chloride for the degreasing of metals, such as coil cleaners and electronics cleaners.
- Consumer use in automotive care products (functional fluids for air conditioners): Consumer use of products containing methylene chloride for automotive care and includes automotive air conditioner refrigerant and leak sealant.
- Consumer use in automotive care products (degreasers): Consumer use of products containing methylene chloride for automotive care and includes products for degreasing automotive parts, such as brakes, carburetors, engines, and gaskets.
- **Consumer use in lubricants and greases**: Consumer use of products containing methylene chloride to reduce friction, heat generation, and wear between solid surfaces, such as engines and brakes.
- **Consumer use in cold pipe insulation**: Consumer use of products containing methylene chloride used in building and construction materials to provide insulation.
- Consumer use in arts, crafts, and hobby materials glue: Consumer use of arts, crafts, and hobby materials, such as glues, containing methylene chloride.
- Consumer use in an anti-spatter welding aerosol: Consumer use of products containing methylene chloride to
 prevent the spatter of the welding from sticking to welding material or a nearby surface (for example,
 workbenches).
- Consumer use in carbon removers and other brush cleaners: Consumer use of products containing methylene
 chloride for cleaning applications to remove carbon, inks and paints, grease, or other foreign matter. The cleaning
 operations include carbon removers (for example, to clean appliances, pots, and pans) and other applications that
 usually involve the use of a brush (for example, in lithographic printing cleaners, in taxidermy, and in wood and
 floor cleaners).

Disposal condition of use:

 Disposal: Disposing of generated waste streams of methylene chloride that are collected either on-site or transported to a third-party site for disposal.



Appendix C: List of Potentially Affected Entities

The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. This list is in Section I.A. of the methylene chloride rule, published on May 8, 2024, in the Federal Register. The list has been provided below for your convenience.

Potentially affected entities include:

- Other Chemical and Allied Products Merchant Wholesalers (NAICS code 424690);
- Crude Petroleum Extraction (NAICS code 211120);
- All Other Basic Organic Chemical Manufacturing (NAICS code 325199);
- Other Chemical and Allied Products Merchant Wholesalers (NAICS code 424690);
- Petroleum Bulk Stations and Terminals (NAICS code 424710);
- Other Basic Inorganic Chemical Manufacturing (NAICS code 325180);
- Testing Laboratories (NAICS code 541380);
- Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology (NAICS code 541715);
- Hazardous Waste Treatment and Disposal (NAICS code 562211);
- Solid Waste Combustors and Incinerators (NAICS code 562213);
- Materials Recovery Facilities (NAICS code 562920);
- Paint and Coating Manufacturing (NAICS code 325510);
- Air and Gas Compressor Manufacturing (NAICS code 333912);
- Gasket, Packing, and Sealing Device Manufacturing (NAICS code 339991);
- Residential Remodelers (NAICS code 236118);
- Commercial and Institutional Building Construction (NAICS code 236220);
- Plumbing, Heating, and Air-Conditioning Contractors (NAICS code 238220);
- Painting and Wall Covering Contractors (NAICS code 238320);
- All Other Miscellaneous Manufacturing (NAICS code 339999);
- Automotive Parts and Accessories Stores (NAICS code 441310);
- All Other Miscellaneous Store Retailers (except Tobacco Stores) (NAICS code 453998);
- Other Support Activities for Air Transportation (NAICS code 488190);
- All Other Automotive Repair and Maintenance (NAICS code 811198);
- Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance (NAICS code 811310);
- Footwear and Leather Goods Repair (NAICS code 811430);
- Adhesive Manufacturing (NAICS code 325520);
- All Other Miscellaneous Chemical Product and Preparation Manufacturing (NAICS code 325998);
- Audio and Video Equipment Manufacturing (NAICS code 334310);
- Reupholstery and Furniture Repair (NAICS code 811420);
- All Other Rubber Product Manufacturing (NAICS code 326299);
- All Other Miscellaneous Textile Product Mills (NAICS code 314999);
- All Other Miscellaneous Fabricated Metal Product Manufacturing (NAICS code 332999);
- Oil and Gas Field Machinery and Equipment Manufacturing (NAICS code 333132);
- Bare Printed Circuit Board Manufacturing (NAICS code 334412);



- Other Electronic Component Manufacturing (NAICS code 334419);
- All Other Miscellaneous Electrical Equipment and Component Manufacturing (NAICS code 335999);
- Printing Machinery and Equipment Manufacturing (NAICS code 333244);
- Petroleum Refineries (NAICS code 324110);
- Petroleum Lubricating Oil and Grease Manufacturing (NAICS code 324191);
- Painting and Wall Covering Contractors (NAICS code 238320);
- Welding and Soldering Equipment Manufacturing (NAICS code 333992);
- New Car Dealers (NAICS code 441110);
- Used Car Dealers (NAICS code 441120);
- Drycleaning and Laundry Services (except Coin-Operated) (NAICS code 812320); and
- Doll, Toy, and Game Manufacturing (NAICS code 339930).



Appendix D: Fact Sheet

The next page reproduces the EPA's fact sheet providing an overview of the 2024 regulation of methylene chloride under TSCA. The factsheet is available at https://www.epa.gov/system/files/documents/2024-07/mecl-fact-sheet_0.pdf.



What is methylene chloride?

Methylene chloride – also called dichloromethane or DCM – is a colorless liquid and a volatile chemical with a sweet odor. The solvent is used in a variety of consumer and commercial applications, including adhesives and sealants, automotive products, and paint and coating removers.

In April 2024, EPA issued a <u>final rule</u> regulating methylene chloride under the Toxic Substances Control Act (TSCA) to protect human health from health risks such as neurotoxicity effects and cancer from inhalation or dermal exposures.

Who is subject to the methylene chloride regulation?

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

What is the methylene chloride regulation under TSCA?

Workplace Chemical Protection Program

A workplace chemical protection program (WCPP) is required in order to continue 13 conditions of use of methylene chloride. These uses include:

- 1. Domestic manufacturing
- 2. Import
- 3. Processing as a reactant
- 4. Processing in incorporation into formulation, mixture, or reaction product
- 5. Processing in repackaging
- 6. Processing in recycling
- 7. Use as a laboratory chemical.
- 8. Use in paint and coating removers for safety critical, corrosion-sensitive components of aircraft and spacecraft
- 9. Use as a bonding agent for solvent welding
- 10. Industrial and commercial use as a processing aid
- 11. Use for plastic and rubber products manufacturing
- 12. Use as a solvent that becomes part of a formulation or mixture where the formulation or mixture will be used inside a manufacturing process and the solvent (methylene chloride) will be reclaimed
- 13. Disposal

The WCPP requires that owners and operators of facilities using methylene chloride take appropriate measures to meet new inhalation exposure limits (including 2 ppm as an 8-hour time weighted average) and develop and implement an exposure control plan, among other requirements.

Prohibitions for Consumer Uses

Distributing methylene chloride for consumer use is prohibited after **May 5, 2025**.

Prohibitions for Commercial Uses²

Most commercial uses are prohibited after **April 28, 2026.**

Commercial Furniture Refinishing

Methylene chloride may be used for only very specific furniture refinishing until **May 8, 2029**, with workplace protections. After this date, this use is prohibited.

Recordkeeping and Downstream Notification

Manufacturers, processors, and distributors are required to update Safety Data Sheets to spread awareness throughout the supply chain. Relevant SDS must be updated by October 7, 2024 for manufacturers and December 4, 2024 for processors and distributors.

¹ Details of these requirements are in 40 CFR Part 751, subpart B, available at https://www.ecfr.gov/current/title-40/part-751/subpart-B.

² There is a TSCA section 6(g) exemption for the emergency use of methylene chloride for NASA in furtherance of their mission. Only NASA and its contractors are exempted for a narrow set of conditions of use.



Compliance Timelines* for the Workplace Chemical Protection Program

Initial Monitoring

Complete initial monitoring.

Demarcate regulated area within 3 months of initial monitoring data.

Provide respiratory protection within 3 months of initial monitoring data but no later than 15 months after final rule.

Existing Facilities
Before **May 5, 2025**(360 days after final rule publication).

New Facilities
Within 30 days of initiating use.

Exposure Limits and Dermal Protections

Ensure methylene chloride inhalation exposures do not exceed the ECEL (2 ppm as an 8-hr TWA) and EPA STEL (16 ppm as a 15-min TWA) for all potentially exposed persons.

Provide respiratory and/or dermal protection if applicable.

Existing Facilities
Before **August 1**, **2025** (450 days after final rule publication).

New Facilities
Within 90 days of initial exposure monitoring.

Exposure Control Plan

Develop and implement an exposure control plan.

Notify potentially exposed persons of completion of exposure control plan within 30 days of its completion.

Provide requested records by a potentially exposed person within 15 days of request.

Existing Facilities
Before October 30,
2025 (540 days after final rule publication).

New Facilities
Update as necessary,
but at least every five
years.

Other Monitoring

Periodic Monitoring Conduct at a minimum every 5 years, but could occur as frequently as every 3 months, dependent upon initial monitoring results. As Needed Monitoring Conduct additional monitoring after any change that may introduce additional sources of methylene chloride exposure or result in a change in exposure levels.

For More Information

- For information or questions on the regulation of methylene chloride under TSCA, as well as the methylene chloride compliance guide, visit www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-methylene-chloride or contact Methylene-chloride or contact www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-methylene-chloride or contact Methylene-chloride or contact Methylene-chloride or contact Methylene-chloride or contact Methylene-chloride or contact Methylene-chloride or contact Wethylene-chloride or contact Wethylene-chloride or contact Methylene-chloride or contact Methylene-chloride or contact www.epa.gov/assessing-and-management-methylene-chloride or contact Wethylene-chloride or contact Methylene-chloride or contact <a href="www.epa.gov/assessing-and-management-met
- For general questions and document requests about TSCA requirements, contact the TSCA Hotline at 1-800-471-7127 or tsca-hotline@epa.gov.
- For general information or questions on environmental regulations and compliance for small business owners, visit https://www.epa.gov/resources-small-businesses/asbestos-and-small-business-ombudsman or contact asbo@epa.gov.

^{*} Longer timeframes for Federal agencies and contractors acting for or on behalf of those agencies. See final rule for details.