Decorative



| **Purpose** | The Environmental Protection Agency, under the Toxic Substances Control Act (TSCA), has ruled that methylene chloride (CAS# 75-09-2, also identified as dichloromethane or DCM) poses an unreasonable risk of injury to human health. This document outlines the requirements for a Workplace Chemical Protection Program for methylene chloride. WCPPs may be established at the lab, department, or institute level. |
| --- | --- |
| **Definitions, Roles, and Responsibilities** | * **As needed monitoring** - Exposure measurements taken when there is a change of use. * **De minimis** - The threshold concentration below which the regulatory restrictions are not required. For methylene chloride, this concentration is below 0.1% by weight. * **Exposure Control Plan (ECP)** - This documents actions taken to mitigate occupational exposures and comply with the WCPP. * **Owners /operators** - Anyone who owns, leases, operates, controls, or supervises a workplace. * **Periodic monitoring** - Dependent upon the results of the initial and/or repeat monitoring; the frequency for gathering new monitoring data ranges from 3 months to 5 years. * **Potentially exposed person** - Any person who may be exposed to a chemical or mixture in a workplace as a result of a condition of use of that chemical substance or mixture. This applies to users of the chemical and any other people that may enter a work area where exposure could occur. * **Prohibited Uses** - the EPA has established exposure limits for methylene chloride for ***some*** conditions of use, including “use as a laboratory chemical” and “use as a bonding agent for solvent welding.” Nearly all other commercial and industrial uses, such as use as a solvent or paint remover, are prohibited. EPA has a full list of prohibited uses in its [Guide to Complying with the 2024 Methylene Chloride Regulation](https://www.epa.gov/system/files/documents/2024-07/mecl-compliance-guide.pdf). * **Regulated area** - An area demarcated where airborne concentrations exceed, or there is a reasonable possibility they may exceed, the Existing Chemical Exposure Limit (ECEL) of 2 parts per million (ppm) or EPA Short Term Exposure Limit (STEL) of 16 ppm. * **Retailer** - An entity that distributes or makes available products to consumers. * **Workplace Chemical Protection Program (WCPP)** - A written program to protect potentially exposed persons in the workplace who are engaged in conditions of use that are not prohibited. |
| **WCPP Elements** | 1. **Occupational exposure limits**    1. Action Level, 8-hour Time Weighted Average (TWA) - 1 ppm    2. Existing Chemical Exposure Limit (ECEL), 8-hour TWA - 2 ppm    3. Short Term Exposure Limit (STEL), 15-minute TWA - 16 ppm 2. **Monitoring requirements**    1. Initial monitoring    2. Periodic monitoring       1. Required every 3 months if ECEL or STEL are exceeded during initial monitoring.       2. Required every 6 months if Action Level is exceeded during initial monitoring.       3. Required every 5 years or when conditions of use change if initial monitoring did not exceed any exposure limits listed in section 1.    3. Sampling requirements       1. Must use personal breathing zone sampling.       2. May use similar exposure groups provided the person monitored is the most exposed person.       3. All members of the similar exposure group must have an opportunity to observe the monitoring.    4. Notification of monitoring results to monitored person and potentially exposed persons (e.g., similar exposure group)       1. Within 15 working days after receipt of results.       2. Shared individually or publicly in writing.          1. Individual notices must be in a language the potentially exposed person understands.          2. Public notices must be posted in an accessible location in English and the most-represented non-English language. 3. **Regulated areas (if exposure limits are reasonably expected to be exceeded)**    1. Would require respiratory protection sufficient for methylene chloride (i.e., supplied air respirator).    2. May need to be established for hazardous waste operations (e.g., bulking). 4. **Exposure Control Plan**    1. Describe consideration and/or implementation of the following types of controls **in order**:       1. Elimination          1. Describe why use of DCM is essential.       2. Substitution          1. Describe inadequacy of available substitutes.       3. Engineering Controls          1. Examples include fume hood, glove box, snorkel, and other closed systems.       4. Administrative Controls          1. Establish standard operating procedures.             1. Require closed containers outside of engineering controls.          2. Access controls and designated storage locations.          3. Procurement controls.          4. Cannot use worker rotation as an administrative control.          5. Can use direct-read monitoring for persons exposed less than 30 days per year.          6. Training (see below).       5. Personal Protective Equipment          1. Respiratory protection is not expected to be relevant for research laboratories, but may be required for waste operations and emergency response.             1. Supplied air          2. Dermal protection (Gloves)             1. Polyvinyl alcohol             2. LLDPE             3. Viton             4. Silver Shield             5. Nitrile-double gloved 5. **Training prior to initial job assignment**    1. Training consistent with OSHA’s Methylene Chloride Standard 1910.1052(l)(1) through (6)       1. Understandable to potentially exposed persons.       2. Requirements of OSHA’s Methylene Chloride Standard.       3. Where exposures may be above the 8-hour TWA PEL or STEL.       4. Repeated as necessary to maintain requisite knowledge of safe use and handling.       5. Updated as conditions of use change.       6. Covers glove selection, use, and disposal if dermal exposure is expected to occur.       7. Covers respirators consistent with OSHA’s Respiratory Protection Standard 1910.134(k) if respiratory protection is required. 6. **Recordkeeping**    1. Owners/operators must maintain compliance records for 5 years.       1. Bills of lading, invoices, and receipts       2. Exposure control and monitoring records    2. May be electronic or hard copy.    3. May be stored centrally or dispersed across departments or research groups.    4. Prescriptive and detailed requirements of recordkeeping of monitoring events.    5. Users must maintain records that prove compliance with the rule.       1. Laboratory inspections       2. Ventilation device (e.g., fume hood) maintenance and certification |
| **Timeline for Compliance** | * By May 5, 2025, complete initial monitoring.   + Within 15 days of monitoring, notify monitored persons and similar exposure group(s) of the results.   + Within 90 days of monitoring, provide any required PPE and establish any regulated areas. * By October 30, 2025, write and implement the Exposure Control Plan(s) for uses that may continue under a WCPP. * By April 28, 2026, cease use and dispose of methylene chloride for prohibited uses. |
| **References** | * [A Guide to Complying with the 2024 Methylene Chloride Regulation](https://www.epa.gov/system/files/documents/2024-07/mecl-compliance-guide.pdf) * [Ansell Chemical Glove Resistance Guide](https://cdn.mscdirect.com/global/media/pdf/search/ansell/ansell-chemical-glove-resistance-guide.pdf) * [EPA Fact Sheet: Methylene Chloride or Dichloromethane](https://www.epa.gov/sites/default/files/2017-04/documents/fact_sheet_methylene_choride_or_dichloromethane_dcm.pdf) * [FACT SHEET: 2024 Final Risk Management Rule for Methylene Chloride under TSCA](https://www.epa.gov/system/files/documents/2024-07/mecl-fact-sheet_0.pdf) * [Methylene Chloride Hazards for Bathtub Refinishers](https://www.osha.gov/sites/default/files/publications/methylene_chloride_hazard_alert.pdf) * [Preliminary Information on Manufacturing, Processing, Distribution, Use, and Disposal: Methylene Chloride](https://www.epa.gov/sites/default/files/2017-02/documents/methylene_chloride_.pdf) * [Risk Evaluation for Methylene Chloride](https://www.regulations.gov/document/EPA-HQ-OPPT-2019-0437-0107) - See Appendix F for details on glove materials |



*Content developed by CSHEMA*