Fact Sheet: Methylene Chloride or Dichloromethane (DCM)

Q1. What is Methylene chloride or Dichloromethane (DCM)?

Methylene chloride, which is also called Dichloromethane, is a volatile chemical that is produced and imported into the United States, with use estimated at over 260 million pounds per year.

Q2. How is methylene chloride used?

Methylene chloride is a solvent used in a variety of industries and applications, such as adhesives, paint and coating products, pharmaceuticals, metal cleaning, chemical processing, and aerosols.

Q3. What uses of methylene chloride did EPA evaluate?

EPA’s final risk assessment evaluated health risks to consumers and workers using methylene chloride in paint and coating removal products, as well as bystanders in the workplace and in residences where methylene chloride paint and coating removers are used. Paint and coating removal poses some of the highest exposures among the various uses of methylene chloride.

Q4. What are the potential risks to people?

There are health risks to workers and consumers who use methylene chloride-containing products, and to bystanders in workplaces and residences where methylene chloride is used. Effects of short-term (acute) exposures to workers and consumers, including bystanders, can result in harm to the central nervous system, or neurotoxicity. Effects of longer periods of exposure (chronic) for workers includes liver toxicity, liver cancer, and lung cancer.

Q5. What action is EPA proposing to address the risks from methylene chloride?

To address these unreasonable risks, on January 12, 2017, EPA issued a proposed rule under section 6 of the Toxic Substances Control Act for methylene chloride in paint and coating removal. The proposed rule would prohibit the manufacture (including import), processing, and distribution in commerce of methylene chloride for consumer paint and coating removal; prohibit the manufacture (including import), processing, and distribution in commerce, and use of methylene chloride for most types of commercial paint and coating removal; require notification of these prohibitions throughout the supply chain; and require limited recordkeeping. EPA will take comment on the proposal for 90 days from the date of publication in the Federal Register. Read the proposed rule.

Q6. Why is EPA taking action on the occupational uses that are also the jurisdiction of OSHA?

EPA coordinated closely with OSHA during the development of this proposal. Both agencies concluded that use of the TSCA authority to address the occupational risks would lead to greater protection for workers, and these protections could be implemented sooner under TSCA.
Q7. What products containing methylene chloride are available to consumers?

Paint stripping products that contain methylene chloride are widely available in retail stores for purchase by consumers and workers.

Q8. Are there specific names of products that contain methylene chloride?

Product names and ingredients change. Searching the Internet using the terms “Dichloromethane,” “Methylene chloride” or “methylene chloride” and “paint and coating removal” produces results that include names of methylene chloride-containing products.

Q9. How do I know if methylene chloride is an ingredient in a product?

Generally, the product label identifies the ingredients in the product and should be read carefully. You can also consult the material safety data sheet (MSDS) or the product safety data sheet (PSDS) available from manufacturers. Methylene chloride can be referred to as dichloromethane or DCM and is sold under a variety of trade names. It is identified by its Chemical Abstract Number: 75-09-2.

Q10. What advice does EPA have for consumers and workers to reduce exposure when methylene chloride is used as paint and coating removal products?

Because EPA has identified potential risks identified to those who may be exposed to paint and coating removers containing methylene chloride, EPA recommends taking measures to minimize exposure. EPA is proposing to ban the use of methylene chloride in all paint and coating removal products for consumer and most commercial uses. People using paint and coating removal products should carefully follow the manufacturer’s instructions. In general, paint and coating removers containing methylene chloride should be used outdoors. If work must be done indoors, you should ventilate the work area (e.g., with a fan and fresh air) to reduce exposure to methylene chloride vapors. If the work must occur indoors under low ventilation conditions, you should consider having the work done professionally.

Additionally, skin contact with methylene chloride should be minimized by using methylene chloride-resistant gloves to reduce exposure. Gloves made of polyethylene vinyl alcohol and ethylene vinyl alcohol (PVA/EVA) are resistant to methylene chloride. However, many other types of gloves are not recommended for use with methylene chloride including latex, nitrile, neoprene, polyethylene, and butyl rubber.

For further information on paint and coating removal products, see the U.S. Consumer Product Safety Commission publication “What You Should Know About Using Paint Strippers.”

Q11. Is EPA evaluating other paint and coating removal products?

EPA has also identified risks to workers associated with the use of N-Methylpyrrolidone (NMP) containing paint and coating removers. Read the NMP risk assessment, Read more about NMP.