Fact Sheet: Methylene Chloride or Dichloromethane (DCM)

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

Methylene chloride, which is also called Dichloromethane or DCM, 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 removal 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 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.
Q6. 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.

Q7. 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.

Q8. What advice does EPA have for consumers and workers to reduce exposure when methylene chloride is used as paint and coating removal products?

People using paint and coating removal products should 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.”

Q9. What action is EPA considering taking to address the health risks?

A number of different options exist for mitigating risks from methylene chloride, including transition to safer chemicals and greener processes/technologies, promotion of best practices, and phase out of uses. Implementing these approaches could involve regulatory action, voluntary approaches, or a mixture of both. EPA is considering a range of possible voluntary and regulatory actions to address risks from the use of methylene chloride-containing paint and coating removal products.

Q10. 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.