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THE MARYLAND POISON CENTER'S MONTHLY UPDATE.
NEWS. ADVANCES. INFORMATION.

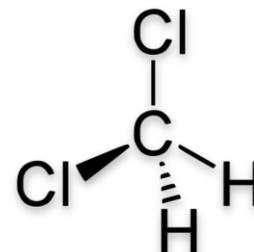
Methylene Chloride

Methylene chloride (dichloromethane) is a volatile, colorless, halogenated hydrocarbon that is found in degreasers, paint strippers and other household and industrial products. It is also used as a propellant for some aerosol products. Poisonings most commonly occur by inhalation, but ingestions and dermal exposures also have resulted in toxicity.

Methylene chloride is a central nervous system depressant, causing lethargy and coma with accompanying respiratory depression. Seizures have also been reported. Coughing, pulmonary irritation, and pulmonary edema may occur after inhalation. Methylene chloride-containing products cause mucous membrane irritation, skin irritation, and corrosive burns following ingestion or dermal contact. Once absorbed by any route of exposure, 25%-34% of the methylene chloride is metabolized by CYP2E1 in the liver to carbon monoxide. Carboxyhemoglobin levels of 10%-12% may result with rare cases of levels as high as 30%-50% having been reported (*Eur J Emerg Med* 2002;9:57-59). Clinical effects associated with elevated carboxyhemoglobin levels include nausea, headache, dizziness, and cardiac arrhythmias; patients with preexisting cardiac disease may experience angina. These signs and symptoms may be delayed by 4-8 hours and may be prolonged. Treatment of methylene chloride toxicity consists of 100% oxygen, supportive care, decontamination, and monitoring of carboxyhemoglobin levels.

Those who work as furniture strippers and bathtub refinishers are especially at risk of developing severe toxicity. The methylene chloride-containing strippers are usually applied with a brush or by using aerosol cans. The worker may not be using respiratory protective equipment and is exposed to high concentrations of methylene chloride because of the small workspace and lack of ventilation. The Centers for Disease Control and Prevention recently reported that there have been at least 13 fatalities among bathtub refinishers in the United States from 2000 to 2010 (*MMWR*. 2012;61(7):119-122). In the reported cases, the products contained 60%-100% methylene chloride. The deaths were attributed to loss of consciousness followed by respiratory depression, and not due to carbon monoxide formation.

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Methylene chloride

Did you know?

Poison centers are receiving calls about the "cinnamon challenge".

Teens are challenging other teens to swallow a spoonful of ground cinnamon within one minute without drinking water. Videos of the attempts are often posted on the internet, encouraging other teens to try the challenge. The cinnamon dries the mucous membranes of the mouth and throat and causes coughing, choking, gagging, vomiting and throat irritation. Those who have asthma and those who unintentionally inhale the powder are at risk of developing shortness of breath and respiratory distress.

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