

TECHNICAL BULLETIN



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DICHLOROMETHANE (METHYLENE CHLORIDE)

SOLVENT

MATERIAL & FUNCTION

Dichloromethane, (also called methylene chloride and DCM, formula CH_2Cl_2) is a halogenated aliphatic hydrocarbon compound. It is a colourless liquid with penetrating ether-like or mild sweet odour..

PROPERTIES

It is moderately soluble in water (2 g/100 ml at 20 °C) and soluble in most organic solvents such as ethanol, ether, phenols, aldehydes and ketones. Dichloromethane vapours are heavier than air. Dichloromethane is normally stable, non-flammable and non-explosive when mixed with air. Dichloromethane is a nonflammable, volatile liquid that is slightly soluble in water, alcohols, phenols, aldehydes, ketones, and organic liquids. It is miscible with chlorinated solvents, diethyl ether, and ethanol. It will form an explosive mixture in an atmosphere with a high oxygen content, or in the presence of liquid oxygen, nitrite, potassium, or sodium. When heated to decomposition, it emits highly toxic fumes of phosgene.

Dichloromethane is incompatible or reactive with strong oxidizers; caustics, chemically-active metals such as aluminum, magnesium powders, potassium, and sodium; and concentrated nitric acid.

APPLICATIONS

Dichloromethane's volatility and ability to dissolve a wide range of organic compounds makes it a useful solvent for many chemical processes..

It is widely used as a paint stripper and a degreaser. In the food industry, it is used to decaffeinate coffee and tea as well as to prepare extracts of hops and other flavorings. Its volatility has led to its use as an aerosol spray propellant and as a blowing agent for polyurethane foams.

Dichloromethane is principally used as a solvent in paint removers and as an aerosol propellant. It is used as a blowing and cleaning agent in the production of urethane foam and plastic fabrication and in paint stripping operations. It is used in metal cleaning, as a solvent in the production of polycarbonate resins, in film processing, and in ink formulations. Dichloromethane is used in the food industry as an extraction solvent for spices, caffeine (decaffeinated coffee), and hops. Dichloromethane's use in aerosol products includes paints and automotive

HEALTH

Dichloromethane is the least toxic of the simple chlorohydrocarbons, but it is not without its health risks as its high volatility makes it an acute inhalation hazard. Dichloromethane is classified as a carcinogen in the Environmental Protection Agency's Toxic Release Inventory (TRI). It is a substance which may reasonably be anticipated to be a carcinogen (NTP)

The primary routes of potential human exposure to dichloromethane are inhalation and ingestion; exposure through the skin is a slower process. It affects the skin, eyes, central nervous system, and cardiovascular system.

Short-term exposure to dichloromethane causes fatigue, weakness, sleepiness, light-headedness, numbness of limbs, tingling skin, nausea, and irritated skin and eyes.

Prolonged skin contact can result in the dichloromethane dissolving some of the fatty tissues in skin, resulting in skin irritation or chemical burns

It may be carcinogenic, as it has been linked to cancer of the lungs, liver, and pancreas in laboratory animals. Dichloromethane crosses the placenta. Fetal toxicity in women who are exposed to it during pregnancy however has not been proven. In animal experiments it was fetotoxic at doses that were maternally toxic but no teratogenic effects were seen.

In many countries products containing dichloromethane must carry labels warning of its health risks. In the European Union use of dichloromethane in paint-strippers was banned for consumers and many professionals.

DIRECTION FOR USE

Avoid contact with skin and eyes and avoid breathing vapor.

Wear safety goggles, face shield or eye protection in combination with breathing protection. See the msds for more details

PACKAGING

20 L and 200L drums

IMPORTANT NOTICE TO CUSTOMER

*Since the use of this product is beyond the control of either seller or manufacturer, their only obligation shall be to replace any quantity of product which is proven defective. They cannot assume any risk or liability in excess of the purchase price of the product itself, which does not include labour or any consequential damages resulting from the use of this product. Determining the suitability of this product for any intended use shall be solely the responsibility of the user. **ALWAYS TEST FIRST.***