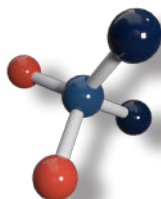


## Dichloromethane



**Formula:** CH<sub>2</sub>Cl<sub>2</sub>

**CAS:** 75-09-2

**Source:** Industrial emissions, Volcanoes, Wetlands and Oceanic sources

**Detection Method:** Tiger, Tiger<sup>LT</sup>, Cub, Falco, TVOC 2, GasClam 2 & GasCheck G

Dichloromethane also known as DCM or methylene chloride is a volatile, colourless liquid, with a mildly sweet, not unpleasant odour. It's immiscible with water but can dissolve a wide range of organic compounds. These properties make it the perfect solvent for use in laboratories. The U.S. Environmental Protection Agency (EPA) issued a final rule banning the use of DCM in all paint removers for consumer use, this came into effective November 24, 2019.

### CH<sub>2</sub>Cl<sub>2</sub> - CAN CAUSE DAMAGE TO THE BRAIN AND CENTRAL NERVOUS SYSTEM (CNS).

#### Attacking The Ozone Layer

DCM is not regulated by the protocol. It has an atmospheric lifetime of less than 6 months, and researchers had previously thought that it breaks down before it reaches the stratosphere.

However, a study published in July suggests that about one million tonnes of DCM enters the atmosphere every year, and that some of it can indeed attack the ozone layer. With surface atmospheric concentrations of DCM rising at about 8% per year, it could contribute up to 30% of the chlorine in the lower atmosphere by 2050.

#### Potential Hazards To Health

Classified as a neurotoxin, dichloromethane has been proven to cause damage to the brain and central nervous system (CNS).

The Environmental Protection Agency (EPA) has classified it as a probable human carcinogen since high levels of exposure to the chemical has been proven to cause liver and lung cancer in animals.

#### How We Use Dichloromethane

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 spray products.

#### Transportation Industry;

Dichloromethane can be used to degrease metal surfaces and parts, such as airplane components and railroad tracks and equipment. Lubricating and degreasing products used in automotive products, for example in gasket removal and for prepping metal parts for a new gasket, could contain methylene chloride.

#### Medical Applications;

In laboratories, dichloromethane is used to extract chemicals from plants or foods for medicine such as steroids, antibiotics and vitamins.

#### Dichloromethane Detection Instruments



Fixed Instruments



Semi-Portable Instruments



Portable Instruments



Personal Instruments

