

Common Name: **METHYLENE CHLORIDE**

Synonyms: Dichloromethane; Methylene Dichloride

CAS No: 75-09-2

Molecular Formula: CH₂Cl₂

RTK Substance No: 1255

Description: Colorless, volatile liquid with a sweet odor

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
2 - Health 1 - Fire 0 - Reactivity DOT#: UN 1593 ERG Guide #: 160 Hazard Class: 6.1 (Poison)	Methylene Chloride may burn, but does not readily ignite. Use dry chemical, CO ₂ , water spray or foam as extinguishing agents. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Hydrogen Chloride</i> and <i>Phosgene</i> . Use water spray to keep fire-exposed containers cool.	Methylene Chloride reacts violently with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); CHEMICALLY ACTIVE METALS (such as POTASSIUM, SODIUM, MAGNESIUM and ALUMINUM); and STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE). Methylene Chloride is not compatible with LIQUID OXYGEN; TITANIUM; and AMINES.

SPILL/LEAKS

Isolation Distance:

Small Spill: 30 meters (100 feet)

Large Spill: 60 meters (200 feet)

Fire: 800 meters (1/2 mile)

Absorb liquids in vermiculite, dry sand, earth, or a similar material and place into sealed containers.

DO NOT wash into sewer.

Methylene Chloride may be hazardous in the environment. Special attention should be given to ground water contamination.

PHYSICAL PROPERTIES

Odor Threshold:	25 to 150 ppm
Flash Point:	Nonflammable
LEL:	13%
UEL:	23%
Auto Ignition Temp:	1,033°F (556°C)
Vapor Density:	2.9 (air = 1)
Vapor Pressure:	440 mm Hg at 77°F (25°C)
Specific Gravity:	1.3 (water = 1)
Water Solubility:	Very slightly soluble
Boiling Point:	104°F (40°C)
Melting Point:	-142°F (-97°C)
Ionization Potential:	11.32 eV
Molecular Weight:	85

EXPOSURE LIMITS

OSHA:	25 ppm, 8-hr TWA; 125 ppm, STEL
NIOSH:	Lowest feasible concentration
ACGIH:	50 ppm, 8-hr TWA
IDLH:	2,300 ppm
PAC:	PAC-1: 200 ppm; PAC-2 560 ppm; PAC-3: 6,900 ppm

PROTECTIVE EQUIPMENT

Gloves:	Polyvinyl Alcohol and Silver Shield®/4H® (>8-hr breakthrough)
Coveralls:	Tychem® Responder® and TK; Zytron® 500; ONESuit® TEC; and Trelchem® HPS and VPS (>8-hr breakthrough)
Respirator:	>25 ppm - Supplied air

HEALTH EFFECTS

Eyes:	Irritation and burns
Skin:	Irritation and burns
Inhalation:	Nose, throat and lung irritation with coughing, wheezing and shortness of breath Headache, nausea, fatigue, dizziness, lightheadedness, and unconsciousness
Chronic:	Cancer (liver and lung) in animals

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 30 minutes. Remove contact lenses if worn. Seek medical attention.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer promptly to a medical facility.