

SAFETY DATA SHEET: METHYLENE CHLORIDE

1. IDENTIFICATION

Product Name: METHYLENE CHLORIDE
Synonyms: Dichloromethane; Methylene dichloride; Methane dichloride; Methylene bichloride; MC; DCM
Formula and Formula Weight: CH₂Cl₂ 84.93
Integra numbers beginning with: M727.10; M727.14; M727.50
Recommended Use: Commercial/industrial solvent
Restrictions on Use: No information available

INTEGRA Chemical Company **24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)**

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2. HAZARDS IDENTIFICATION

OSHA Classification:	Hazard Category:	Hazard Statement:
Skin Corrosion/Irritation	2	Causes skin irritation.
Eye Damage/Irritation	2A	Causes serious eye irritation.
Carcinogenicity	2	Suspected of causing cancer.
Specific Target Organ Toxicity (single exposure)	3	May cause respiratory irritation. May cause drowsiness or dizziness.
Specific Target Organ Toxicity (repeated exposure)	2	May cause damage to organs through prolonged or repeated exposure.

Signal Word: WARNING



Precautionary Statements

Prevention:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe fume, gas, mist, vapors, spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing, eye protection, face protection.

Response

If on skin: Wash with plenty of water.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If exposed or concerned: Get medical advice, attention.
Call a poison center, doctor if you feel unwell.
Specific treatment (see first aid section on this label)
If skin irritation occurs: Get medical advice, attention.
If eye irritation persists: Get medical advice, attention.
Take off contaminated clothing and wash it before reuse.

Storage

Store in a well ventilated place. Keep container tightly closed.
Store locked up.

Disposal

Dispose of contents, container in accordance with all governmental regulations.

Hazards Not Otherwise Classified: No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Synonyms	CAS #	% WEIGHT
Methylene chloride	Dichloromethane; Methylene dichloride; Methane dichloride	00075-09-2	100

4. FIRST AID MEASURES

Inhalation: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.

Eye Contact:	Flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek medical attention.
Skin Contact:	Wash with soap and water. Seek medical attention if irritation develops.
Ingestion:	Do not induce vomiting. If victim is conscious, rinse mouth, give water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.
Additional notes:	Symptoms and effects include irritation of eyes, nose, skin and throat; skin effects (chapping, cracking, erythema, burns), eye damage; central nervous system effects (such as headaches, disorientation, dizziness, fatigue, decreased attention span), weakness, narcosis, lightheadedness, staggering, decreased eye/hand coordination, numbness of the extremities, cardiac effects (including elevation of carboxyhemoglobin, chest pain, shortness of breath), liver effects, breathing problems, bronchitis, pulmonary edema, unconsciousness, death. Possible carcinogen.

5. FIRE-FIGHTING MEASURES

Extinguishing Media:	Water spray, carbon dioxide, dry chemical or foam.
Special Equipment and Precautions:	Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.
Specific Hazards:	Concentrated vapors can be ignited by a high intensity ignition source.
Hazardous combustion products:	Oxides of carbon. Toxic vapors of hydrogen chloride, phosgene, chlorine

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures:	Remove all potential ignition sources. Prevent spread of spill. Wear full protective equipment including suitable respiratory protection. Absorb with sand or inert material. Place into suitable container for disposal. Use water spray to reduce vapors. Do not allow material to enter sewers or release to environment. Do not breathe fume/gas/mist/vapors/spray.
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7. HANDLING AND STORAGE

Incompatible Materials:	Incompatible with strong acids, strong bases, strong oxidizers. Alkali metals, aluminum, magnesium, potassium, sodium, amines, vinyl compounds, plastics, rubber, water.
Storage and Handling:	Store locked up in a cool, dry, well-ventilated area away from incompatible materials. Keep containers tightly closed and protect them from physical damage. Store under inert gas, out of sunlight, and away from heat. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe fume, gas, mist, vapors, spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, eye protection, face protection.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OSHA & ACGIH Exposure Limits:	
Methylene chloride	OSHA TWA: 25 ppm OSHA STEL: 125 ppm (15 min) ACGIH TWA: 50 ppm; 174 mg/m3
Engineering Controls:	Use general or local exhaust ventilation to meet TLV and PEL requirements.
Respiratory Protection:	Respiratory protection required if airborne concentrations exceed PEL or TLV. Use a NIOSH approved full facepiece supplied air respirator.
Skin/Eye Protective Equipment:	Safety goggles, face shield, chemical-resistant gloves and protective clothing appropriate for the risk of exposure. Viton, PVA or equivalent gloves are recommended. Contact lenses should not be worn while working with methylene chloride. Facilities storing or utilizing this material should have readily accessible eyewash stations and safety showers. Select respirators and other safety equipment in accordance with regulations and based upon the particular conditions of use and risk of exposure. Always use safe chemical-handling and good industrial hygiene practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless liquid
Odor:	Ether-like odor
Odor Threshold:	25 to 320 ppm
pH:	Not available
Melting/Freezing Point:	-95 °C
Initial Boiling Point and Boiling Range:	40 °C
Flash Point:	Not available
Evaporation Rate:	27.5 Butyl Acetate=1
Flammability:	Not flammable
Flammable or Explosive	Upper: 25
Limits (% by volume in air)	Lower: 12
Vapor Pressure:	350 mm Hg@20°C
Vapor Density:	2.9
Relative Density:	1.32 Water=1
Solubility:	1.3 g/100 ml at 20°C
Partition Coefficient: n-octanol/water	1.25
Auto-Ignition Temperature:	556 °C
Decomposition Temperature:	Not available
Viscosity:	Not available

10. STABILITY AND REACTIVITY

Reactivity:	No information available
Stability:	Stable
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur
Conditions to Avoid:	Heat, sparks and open flame. Moisture, light, direct sunlight.
Incompatibles:	Incompatible with strong acids, strong bases, strong oxidizers. Alkali metals, aluminum, magnesium, potassium, sodium, amines, vinyl compounds, plastics, rubber, water.
Decomposition Products:	Oxides of carbon. Toxic vapors of hydrogen chloride, phosgene, chlorine

11. TOXICOLOGICAL INFORMATION

Effects of Over Exposure:

Inhalation:	Harmful if inhaled. Irritating to the nose and throat. Causes headache, nausea, vomiting, dizziness, drowsiness, unconsciousness. Narcosis, numbness of extremities, weakness, fatigue, light-headedness, gastrointestinal irritation, central nervous system depression, headaches, disorientation, dizziness, fatigue, decreased attention span, staggering, decreased eye/hand coordination, cardiac effects (including elevation of carboxyhemoglobin, chest pain, shortness of breath), breathing problems, bronchitis, pulmonary edema, liver toxicity. May cause methemoglobin formation in the blood. Severe overexposure may be fatal.
Skin Contact:	Contact may cause irritation or burns. May cause chapping, cracking, erythema, burns. May be absorbed through the skin and contribute to the effects caused by inhalation.
Eye Contact:	Contact is irritating to the eyes and may cause temporary corneal damage. Vapors cause serious damage.
Ingestion:	Harmful if swallowed. Ingestion may cause headache, dizziness, nausea, vomiting, gastrointestinal irritation. Narcosis, weakness, fatigue, central nervous system depression, unconsciousness. May cause methemoglobin formation in the blood. Severe overexposure may be fatal.
Chronic Effects:	Liver damage, kidney damage. Damage to lungs, blood, central nervous system.
Target Organs:	Eyes, skin, respiratory system, central nervous system. Cardiovascular system, liver, kidneys.
Additional Effects:	May aggravate pre-existing liver or kidney disorders, lung disease, central nervous system disorders, heart disorders, cardiovascular disorders, anemia..
Reproductive Effects:	This material may be mutagenic.
Carcinogenicity:	Animal studies indicate this material may be carcinogenic. Methylene chloride is listed as a carcinogen by OSHA, by the NTP as Anticipated Human Carcinogen and by the IA as Group 2B, Possible Human Carcinogen.

Toxicity Data:

Methylene chloride	Irritation (skin, rabbit)	Severe 810 mg/24 hr
	Irritation (eye, rabbit)	Mild 500 mg/24 hr
	LC50 (inhalation, mouse)	52000 mg/m3
	LD50 (skin, rat)	> 2000 mg/kg
	LD50 (oral, rat)	> 2000 mg/kg

12. ECOLOGICAL INFORMATION

	<u>Aquatic Toxicity Data:</u>	<u>Terrestrial Toxicity Data:</u>
Methylene chloride	LC50 Fathead minnow: 193 mg/L - 96h; E	No information available
Persistence and degradability:	No information available	
Bioaccumulative potential:	No information available	
Mobility in soil:	No information available	
Other adverse effects:	No information available	

13. DISPOSAL CONSIDERATIONS

Disposal Procedures: Dispose of material and containers in accordance with all local, state and federal regulations.

14. TRANSPORTATION INFORMATION

This product is a regulated material for domestic ground transportation, per CFR Title 49.

UN Number:	UN1593
Proper Shipping Name:	Dichloromethane
Packing Group:	III
Hazard Class:	6.1
Environmental hazards:	No information available
Special precautions:	No information available
Bulk transport:	No information available

15. REGULATORY INFORMATION

Methylene chloride is listed in the TSCA inventory and in SARA 313.

16. OTHER INFORMATION

OSHA SDS #: 25938 rev 102 10.6.2015

NE = Not established, NA = Not applicable or Not available

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***** END OF SDS *****