



Safety Data Sheet

Dichloromethane

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Dichloromethane: ACS, HPLC, GC, Pesticide

Synonyms/Generic Names: Methylene chloride

Product Number: CP-A8442, CP-C8442, CP-A8440, CP-C8440, CP-E8440

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: ChemPure Brand Chemicals
39103 Warren Road
Westland, MI 48185

For More Information Call: 734-729-1805 (Monday-Friday 8:00-4:30)

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Carcinogen, Target organ effect, Irritant

Target Organs: Liver, Pancreas, Blood, Central nervous system, Heart, Kidney

Signal Words: Warning

Pictograms:



GHS Classification:

Acute toxicity, Oral	Category 4
Acute toxicity, Dermal	Category 5
Skin irritation	Category 2
Eye irritation	Category 2A
Carcinogenicity	Category 2
Specific target organ toxicity-single exposure-Respiratory system, Central nervous system	Category 3
Specific target organ toxicity-repeated exposure, Oral-Liver, Blood	Category 2
Specific target organ toxicity-repeated exposure, Inhalation-Central nervous system	Category 2

GHS Label Elements, including precautionary statements:

Hazard Statements:

H303+H313	May be harmful if swallowed or in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs (Liver, Blood) through prolonged or repeated exposure if swallowed.
H373	May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.

Precautionary Statements:

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P281	Use personal protective equipment as required.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

Potential Health Effects

Eyes	Causes eye irritation.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Ingestion	Harmful if swallowed.

NFPA Ratings

Health	2
Flammability	1
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	2
Fire	1
Reactivity	0
Personal	H

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Methylene Chloride	>99	75-09-2	200-838-9	CH ₂ Cl ₂	84.93 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product may be flammable at high temperatures. Use water spray, alcohol-resistant foam, dry chemicals or carbon dioxide to extinguish fire. Use appropriate media for adjacent fire. Cool containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides, hydrogen chloride gas) under fire conditions. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Neutralize spill. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Methylene Chloride	50 ppm 174 mg/m ³	TLV	ACGIH
	25 ppm	PEL	OSHA
	125	STEL	OSHA

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles, and face shield if splashing is likely to occur.
Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, and full body covering. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Colorless liquid.
Odor	Not Available
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	-97°C (-143°F)
Initial boiling point and boiling range	39°C (103°F)
Flash point	Not Available
Evaporation rate	0.71
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	Upper: 19% (V) Lower:12% (V)
Vapor pressure	470.9 hPa (353.2 mmHg) at 20°C (68°F)
Vapor density	2.93 (air=1)
Density	1.325 (water=1)
Solubility (ies)	Soluble in methanol, diethyl ether, n-octanol, acetone. Partially soluble in water.
Partition coefficient: n-octanol/water	log Pow: 1.25
Auto-ignition temperature	556°C (1,032°F)
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Heat, flames, sparks, exposure to sunlight.
Incompatible Materials	Alkali metals, aluminum, strong oxidizing agents, bases, amines, magnesium, strong acids, strong bases, vinyl compounds.
Hazardous Decomposition Products	Carbon oxides, hydrogen chloride gas.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	Rabbit – 24h – Skin irritation
Eyes	Rabbit – 24h – Mild eye irritation
Respiratory	LC50 – Rat – 52,000 mg/m ³
Ingestion	LD50 – Rat – 1,600 mg/kg

Carcinogenicity

IARC	2B-Group 2B: Possibly carcinogenic to humans (Methylene chloride).
ACGIH	A3: Animal carcinogen (Methylene chloride)
NTP	Reasonably anticipated to be a human carcinogen (Methylene chloride).
OSHA	1910.1052

Signs & Symptoms of Exposure

Skin	Defatting, dermatitis.
Eyes	Redness, blurred vision, tears.
Respiratory	Difficulty breathing, dizziness, drowsiness, anesthetic effects.
Ingestion	Nausea, vomiting, increased liver enzymes, weakness, abdominal pain.

Chronic Toxicity	Carcinogenic.
Teratogenicity	Passes through the placenta, excreted in maternal milk.
Mutagenicity	Genotoxicity in vivo - rat - Oral DNA damage
Embryotoxicity	Not Available
Specific Target Organ Toxicity-single exposure	May cause respiratory irritation. May cause drowsiness or dizziness.
Specific Target Organ Toxicity-repeated exposure	Inhalation - May cause damage to organs through prolonged or repeated exposure. - Central nervous system Oral - May cause damage to organs through prolonged or repeated exposure. - Liver, Blood
Reproductive Toxicity	Not Available
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	LC50 – Pimephales promelas – 193 mg/L – 96h NOEC – Cyprinodon variegates – 130 mg/L – 96h
Aquatic Invertebrate	EC50 – Daphnia magna – 1,682 mg/L – 48h
Terrestrial	Not Available

Persistence and Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN1593, Dichloromethane, 6.1, pg III
TDG	UN1593, DICHLOROMETHANE, 6.1, pg III
IMDG	UN1593, DICHLOROMETHANE, 6.1, pg III
Marine Pollutant	No
IATA/ICAO	UN1593, Dichloromethane, 6.1, pg III

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Listed: Methylene Chloride
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Methylene Chloride
SARA 312	Methylene Chloride
SARA 313	Not Listed
WHMIS Canada	Class D-1B: Toxic material causing immediate and serious toxic effects. Class D-2A: Very toxic material causing other toxic effects. Class D-2B: Toxic material causing other toxic effects.

16. OTHER INFORMATION

Revision	Date
Revision 1	07-16-2012
Revision 2	08/21/2013

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