

Dichloromethane

SECTION 1. IDENTIFICATION

Product Identifier	Dichloromethane
Other Means of Identification	Methylene Chloride, Methane Dichloride, Methylene Dichloride, DCM
Product Code(s)	DI3010, DI3010P, DI3020
Product Family	Organic
Recommended Use	Laboratory, Paint stripper, Solvent.
Restrictions on Use	None known.
Supplier Identifier	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
Emergency Phone No.	Infotrac, 1-800-535-5053, 24 Hours
SDS No.	0031

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Acute toxicity (Oral) - Category 5; Acute toxicity (Dermal) - Category 5; Skin irritation - Category 2; Eye irritation - Category 2A; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 2

Label Elements



Signal Word:
Warning

Hazard Statement(s):

May be harmful if swallowed.
May be harmful in contact with skin.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):

Wear protective gloves/protective clothing/eye protection/face protection.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Do not breathe dust/fume/gas/mist/vapours/spray.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Methylene chloride	75-09-2	99	Dichloromethane, Methane Dichloride, Methylene Bichloride

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Immediately call a Poison Centre or doctor.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

Ingestion

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Immediately call a Poison Centre or doctor. Specific treatment is required.

First-aid Comments

Some of the first-aid procedures recommended here require advanced first-aid training. If exposed or concerned, get medical advice or attention.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: at high concentrations can cause severe lung injury. Can cause severe irritation of the nose and throat. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. In severe cases, death can result. If swallowed: can cause severe irritation of the nose and throat. Aspiration hazard. May be drawn into the lungs if swallowed or vomited, causing severe lung damage. Death can result.

Immediate Medical Attention and Special Treatment

Special Instructions

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Product

See Section 9 (Physical and Chemical Properties) for flash point and explosive limits. Heating increases the release of

Product Identifier: Dichloromethane

Date of Preparation: July 15, 2015

Page 02 of 07

toxic vapour. Closed containers may rupture violently when heated releasing contents.

Very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles.

Fire-fighters should enter area wearing specialized protective equipment. (Bunker Gear will not provide adequate protection.) chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Remove or isolate incompatible materials as well as other hazardous materials. Increase ventilation to area or move leaking container to a well-ventilated and secure area.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and Materials for Containment and Cleaning Up

Ventilate the area to prevent the gas from accumulating, especially in confined spaces. Stop or reduce leak if safe to do so. Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: contact emergency services and manufacturer/supplier for advice.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Avoid breathing in this product. Only use where there is adequate ventilation. Avoid release to the environment. Prevent uncontrolled release of product. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Prevent accidental contact with incompatible chemicals.

Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated, out of direct sunlight and away from heat and ignition sources, separate from incompatible materials (see Section 10: Stability and Reactivity). Restrict access to authorized personnel only. Regularly inspect for physical changes or signs of crystallization, damage or leaks.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Methylene chloride			25 ppm			

Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Use stringent control measures such as process enclosure to prevent product release into the workplace. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: polyvinyl alcohol, Silver Shield/4H® (PE/EVAL/PE), Trelchem® HPS, Trelchem® VPS, Tychem® Responder, Tychem® TK.

The following materials should NOT be used: butyl rubber, natural rubber, neoprene rubber, nitrile rubber, polyethylene, polyvinyl chloride, Viton®/butyl rubber, Barrier® (PE/PA/PE), Tychem® SL (Saranex™).

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an organic vapour cartridge, wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Colourless liquid.
Odour	Aromatic
Odour Threshold	~ 160 ppm (detection)
pH	Not available
Melting Point/Freezing Point	-97.2 °C (-143.0 °F) (melting)
Initial Boiling Point/Range	39.8 °C (103.6 °F)
Flash Point	Not available
Evaporation Rate	14.5 (n-butyl acetate = 1)
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	19% (upper); 12% (lower)
Vapour Pressure	46.5 kPa (348.8 mm Hg) at 20 °C
Vapour Density (air = 1)	2.93 (calculated)
Relative Density (water = 1)	1.33 at 20 °C
Solubility	Moderately soluble in water; Soluble in all proportions in alcohols (e.g. ethanol).
Partition Coefficient, n-Octanol/Water (Log Kow)	1.25 (estimated)
Auto-ignition Temperature	556 °C (1033 °F)
Decomposition Temperature	120 °C (248 °F)
Viscosity	0.32 mm ² /s at 20 °C (kinematic); 0.43 mPa.s at 20 °C (dynamic)
Other Information	
Physical State	Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

High temperatures. Open flames, sparks, static discharge, heat and other ignition sources. Hot surfaces. Temperatures above 100 °C

Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid), alcohols (e.g. ethanol), strong acids (e.g. hydrochloric acid), amines (e.g. triethylamine).

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; corrosive hydrogen chloride; corrosive phosgene.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Product Identifier: Dichloromethane

Date of Preparation: July 15, 2015

Page 04 of 07

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Methylene chloride	22170 ppm (rat) (4-hour exposure)	2280 mg/kg (male rat)	

Skin Corrosion/Irritation

Animal tests show moderate or severe irritation.

Serious Eye Damage/Irritation

Animal tests show mild irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Causes depression of the central nervous system.

Skin Absorption

No information was located.

Ingestion

Causes severe irritation or burns to the mouth, throat and stomach, harmful effects on the liver, harmful effects on the kidneys.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause harmful effects on the kidneys, harmful effects on the liver. Blood tests may show abnormal results. Decreased ability of blood to carry oxygen, harmful effects on the heart. In severe cases death can result.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Methylene chloride	Group 2A	A3		

Key to Abbreviations

IARC = International Agency for Research on Cancer. Group 2B = Possibly carcinogenic to humans.

ACGIH® = American Conference of Governmental Industrial Hygienists. A3 = Animal carcinogen.

Reproductive Toxicity

Development of Offspring

Not known to harm the unborn child.

Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

Conclusions cannot be drawn from the limited studies available.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

Ecotoxicity

Acute Aquatic Toxicity

Product Identifier: Dichloromethane

Date of Preparation: July 15, 2015

Page 05 of 07

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Methylene chloride	193 mg/L (Pimephales promelas (fathead minnow); 96-hour)			

Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Methylene chloride	130 mg/L (Cyprinodon variegatus (sheepshead minnow); 96 hr)			

Persistence and Degradability

Expected to be removed rapidly from aquatic environments by evaporation.

Bioaccumulative Potential

This product or its degradation products have the potential to bioaccumulate based on quantitative structure-activity relationships.

Mobility in Soil

If released into the environment, this product is expected to move rapidly through the soil, based on physical and chemical properties.

Other Adverse Effects

This product contains volatile organic compounds. This product may contribute to smog formation.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. This product and its container must be disposed of as hazardous waste. Do NOT dump into any sewers, on the ground or into any body of water.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN1593	Dichloromethane	6.1	III

Environmental Hazards Not applicable

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS 1988 Classification

D1B - Toxic; D2A - Very Toxic (Carcinogenicity); D2B - Toxic

SECTION 16. OTHER INFORMATION

Product Identifier: Dichloromethane

Date of Preparation: July 15, 2015

SDS Prepared By Alphachem Limited

Phone No. (905)-821-2995

Date of Preparation July 15, 2015

Date of Last Revision November 11, 2015

Disclaimer This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.