



Safety Data Sheet

Section 1. Identification		
Product Identifier	Methylene Chloride	Version: 4 Effective Date: 16 February, 2016
Other Means Of Identification	Dichloromethane	
Initial Supplier Identifier	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
Recommended Use and Restrictions On Use	Industrial solvent. No restrictions.	
Product Family	Alkyl Halide	
24 Hour Emergency	Canutec (613) 996-6666	

Section 2. Hazard Identification	
Hazard Classification	 
Health Hazards	Skin Corrosion/Irritation – Category 2 Eye Damage/Irritation – Category 2A Specific Target Organ Toxicity (Single Exposure) – Category 3 Gem Cell Mutagenicity – Category 2 Carcinogenicity – Category 2 Specific Target Organ Toxicity (Repeated Exposure) – Category 2 Aspiration Hazard – Category 1
Signal Word	Danger
Hazard Statement	Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation; or may cause drowsiness or dizziness. Suspected of causing genetic defects (Ingestion, inhalation, skin contact). Suspected of causing cancer (ingestion, inhalation, skin contact) May cause damage to organs (kidney, central nervous system, blood) through prolonged or repeated exposure (Ingestion, inhalation, skin contact). May be harmful if swallowed and enters airways.

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Precautionary Prevention Statement	Wash hands thoroughly after handling. Wear protective gloves, clothing, eye and face protection. Avoid breathing dust, fume, gas, mist, vapours and spray. Use only outdoors or a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust, fume, gas, mist, vapours and spray.
Precautionary Response Statement	IF ON SKIN: Wash with plenty water and soap. Specific Treatment: do not induce vomiting unless directed by medical personnel. Treat symptomatically and supportively. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell. IF exposed or concerned: Get medical attention. Get medical attention if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTRE. Do NOT induce vomiting.
Precautionary Storage Statements	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Precautionary Disposal Statement	Dispose of contents / container in accordance with local regulations.
Other Hazards	None

Section 3. Composition / Information on Ingredients

Chemical Name	Common Name or Synonyms	CAS NO. and Other Unique Identifiers	% by weight
Dichloromethane	Methylene chloride	75-09-2	99.9

Section 4. First-Aid Measures

Eye Contact	Flush eyes with water for 15 minutes. Seek medical attention.
Skin Contact	Flush area with water. If irritation persists seek medical attention. Launder clothing before reuse.
Inhalation	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Ingestion	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.



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<p>Most Important Symptoms and Effects Both Acute and Delayed</p>	<p>If inhaled: nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation. May cause blood changes. Overexposure may cause an increase in carboxyhemoglobin levels in the blood. Can produce delayed pulmonary edema.</p> <p>If in eyes: severe irritation, and possible eye burns.</p> <p>If on skin: Causes irritation with burning pain, itching, and redness. Prolonged exposure may result in skin burns.</p> <p>If ingested: gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.</p>
<p>Immediate Medical Attention and Special Treatment</p>	<p>Rapid absorption through the lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Supportive care. Treatment should be based on the judgment of the physician in response to the reactions of the patient. If burn is present, treat as any thermal burn after decontamination.</p>

Section 5. Fire-Fighting Measures	
<p>Suitable and Unsuitable Extinguishing Media</p>	<p>Dry chemicals, CO₂, alcohol foam. Do not use direct water jet.</p>
<p>Hazardous Combustion Products</p>	<p>Hydrogen chloride, carbon monoxide, carbon dioxide, phosgene, chlorine.</p>
<p>Specific Hazards Arising From The Product</p>	<p>Because of its high volatility, airborne concentrations of methylene chloride can accumulate in poorly ventilated areas. Odor is a poor indicator of possibly dangerous air concentrations of methylene chloride.</p>
<p>Special Protective Equipment and Precautions For Fire-Fighters</p>	<p>Fire-fighters should wear self contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire.</p>

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Section 6. Accidental Release Measures	
Personal Precautions, Protective Equipment and Emergency Procedures	Chemical resistant footwear and coveralls. Air purifying respirator fitted with organic vapour cartridges. Safety glasses. Neoprene gloves. Evacuate unnecessary personnel. Secure area and ensure adequate ventilation.
Environmental Precautions	Do not allow material to enter, sewers and surface watercourses. Low lying areas – sumps, basements etc may collect flammable vapours.
Methods and Materials For Containment and Clean-Up	Isolate area, restrict access, ventilate area. Soak up small spills with absorbent material and place in containers suitable for disposal. For larger spills, dike area, pump into containers for disposal. Use absorbent to remove residues, then wash with detergent and water.

Section 7. Handling and Storage	
Precautions For Safe Handling	Handle with care. Toxic material. Empty containers may contain residues, do not cut, grind or weld these containers. DO not enter confined spaces where vapours may be entrapped, especially low lying areas such as sumps, or larger tank and containment areas.
Conditions For Safe Storage	Keep containers closed when not in use. Store in a cool place away from sources of ignition. Significant vapour pressure can be generated above 12 °C., this may result in venting or rupture. Do not store in aluminum, zinc, aluminum alloys and plastics. Product has a shelf life of 24 months.

Section 8. Exposure Controls / Personal Protection				
Control Parameters	TWA: 8 Hr	STEL: 15 min	Ceiling	IDLH *
Dichloromethane	500 ppm OSHA	2000 ppm OSHA	1000 ppm OSHA	2300 ppm
* Immediately Dangerous to Life and Health				
Exposure Controls	Local exhaust ventilation			
Appropriate Engineering Controls	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.			
Individual Protective Measures	If exposure limits are exceeded:			
Eye / Face Protection	Safety glasses			
Skin Protection	Chemical resistant coveralls, gloves			
Respiratory Protection	Air purifying respirator fitted with organic vapour cartridges			

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Section 9. Physical and Chemical Properties	
Appearance	Clear, colourless liquid with irritating vapour
Odour	Ethereal odor - chloroform-like
Odour Threshold	Not available.
pH	Not applicable
Flash Point	>100 °C
Boiling Point and Boiling Range	39.8 °C
Melting Point and Freezing Point	-96.7 °C
Evaporation Rate	28 (ether =1)
Flammability (solid, gas)	Not applicable
Upper and Lower Flammability or Explosive Limits	13-23 vol%
Vapour Pressure	355 mmHg @ 20 °C
Vapour Density	2.93 (air = 1)
Relative Density	1.32
Solubility	2.0 g / 100 g water @ 25 °C
Partition co-efficient, n-Octanol/Water	log Pow: 1.25
Auto-ignition Temperature	556 °C
Decomposition Temperature	No data
Viscosity	No data

Section 10. Stability and Reactivity	
Reactivity	May form explosive mixtures in atmospheres having high oxygen content.
Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur
Conditions to Avoid	Avoid excessive heat, open flames and all ignition sources. Direct sunlight.
Incompatible Materials	Oxidising agents, strong bases. Amines. Aluminum and magnesium powders, potassium, sodium and zinc powders. Aluminum and alloys.
Hazardous Decomposition Products	Decomposition products can include and are not limited to: Hydrogen chloride, chlorine and phosgene. NOTE: Water contamination may cause corrosion of metals due to formation of hydrochloric acid.

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Section 11. Toxicological Information	
Component Toxicity	LD50 Oral LD50 Dermal LC50 Inhalation
Dichloromethane	>2.0 g/kg (Rat) 76 g/m ³ (Rat) 4h
Likely Routes of Exposure	
Skin:	Prolonged and repeated contact will cause irritation and potentially burns. Contact leaves burning and then cold sensation. Should not be absorbed through the skin.
Eyes:	Irritation may be slow to heal. Vapour may cause eye irritation, discomfort and redness. Can cause corneal injury.
Inhalation:	May cause irritation to the upper respiratory tract. Excessive exposure may cause unconsciousness and death. May cause carboxyhemoglobinemia – impairment of the blood's ability to transport oxygen. Anesthetic effects can be observed at levels in the range of 500 – 1000 ppm. Progressively higher levels (over 1000 ppm) can cause dizziness, drunkenness, and as low as 10,000 ppm, unconsciousness and death. These high levels may also cause cardiac arrhythmias (irregular heart beat).
Ingestion:	Oral toxicity is low. Small amounts ingested incidentally during handling are not considered likely to cause injury. Larger amounts are considered harmful. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.
Acute Toxicity Estimates (ATE)	LD50 Oral - Rat - > 2,000 mg/kg LC50 Inhalation - Rat - 52,000 mg/m ³ LD50 Dermal - Rat - > 2,000 mg/kg
STOT (Specific Target Organ Toxicity) – Single Exposure	May cause respiratory irritation. May cause drowsiness or dizziness.
Aspiration Toxicity	Not classified
STOT (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
Skin Corrosion / Irritation	May be harmful if absorbed through skin. Causes skin irritation.
Serious Eye Damage / Irritation	Causes eye irritation.
Respiratory or Skin Sensitization	Not classified
Carcinogenicity	Not listed. IARC - Carcinogens - Group 2B ACGIH – A3.
Reproductive Toxicity	
- Sexual Function and Fertility	Not classified



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- Development of Offspring	Not classified
- Effects on or via Lactation	Not classified
Germ Cell Mutagenicity	Genotoxicity in vivo - Rat - Oral DNA damage
Interactive Effects	None known
Other Information	None known

Section 12. Ecological Information

Ecotoxicity	Dichloromethane: LC50 193 mg/L (Lepomis macrochirus) 96 hr Static and flow through LC50 262 - 855 mg/L (Pimephales promelas) 96 hr static LC50: 140.8 – 277.8 mg/L (Pimephales promelas) 96 hr flow through EC50 660 mg/L (Pseudokirchneriella subcapitata) 72 hr
Persistence and Degradability	Result: < 26 % - Not readily biodegradable. Method: OECD Test Guideline 301C
Bioaccumulative Potential	No data
Biodegradability	Not readily bio-degradable
Mobility in Soil	Potential for mobility in soil is very high.
Other Adverse Effects	None known

Section 13. Disposal Considerations

Disposal Considerations	Dispose of contents / container in accordance with local regulations.
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Section 14. Transport Information

UN Number	1593
UN Proper Shipping Name	Dichloromethane
Transport Hazard Class(es)	6.1
Packaging Group	III
Environmental Hazards	Not applicable
Bulk Transport	Not applicable
Special Precaution	Not applicable
DOT Erg#	160

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Section 15. Regulatory Information	
Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or exempt
TSCA	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt
Additional Information	None

Section 16. Other Information	
NFPA Rating	Health-2/ Flammability-1/Reactivity-0/Special Hazard-Not applicable
HMIS Rating	Health-2/Flammability-1/Reactivity-0/Personal Protection-See Section 8.
Prepared by:	Chemfax Products Ltd., Technical Department
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