SAFETY DATA SHEET

SDS00936
METHYLENE CHLORIDE

Preparation Date: 12/Aug/2017 Version: 1

1. IDENTIFICATION

Product identifier

Product Name METHYLENE CHLORIDE

Other means of identification

Product Code(s) SDS00936

Synonyms Dichloromethane.

Recommended use of the chemical and restrictions on use

Recommended Use Solvent Paint stripper

Restricted Uses No information available

Initial Supplier Identifier
Univar Canada Ltd.
9800 Van Horne Way
Richmond, BC V6X 1W5
Telephone: 1-866-686-4827

Emergency telephone number

24 Hour Emergency Phone Number (CANUTEC): 1-888-226-8832 (1-888-CAN-UTEC)

2. HAZARD IDENTIFICATION

Hazardous Classification of the substance or mixture

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2

Label elements

Hazard pictograms

Signal Word: Danger

Hazard statements
Harmful if swallowed
May cause cancer
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation
May cause drowsiness or dizziness
May cause damage to organs through prolonged or repeated exposure

Precautionary Statements

Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

Response
IF exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Storage
Store locked up

Disposal
Dispose of contents/container to an approved waste disposal plant

Other Information
Unknown acute toxicity No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No	Weight-%	Synonyms
Dichloromethane	75-09-2	90 - 100%	Dichloromethane

4. FIRST AID

Description of first aid measures

General advice
Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation
Remove to fresh air.

Eye contact
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact
Wash skin with soap and water.

Ingestion
Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Most important symptoms and effects, both acute and delayed:
Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury. May cause slight corneal injury. Prolonged or repeated exposure may cause skin irritation, even a burn. May cause pain disproportionate to the level of irritation to eye tissue. Single dose oral toxicity is low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Swallowing larger amounts may cause injury. In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death. Excessive exposure may cause irritation to upper respiratory tract (nose and throat). May cause carboxyhemoglobinemia, thereby impairing the blood's ability to transport oxygen. Minimal anesthetic or narcotic effects may be seen in the range of 500-1000 ppm methylene chloride. 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 heartbeats). Extensive skin contact with methylene chloride, such as immersion, may cause an intense burning sensation, followed by a cold, numb feeling which will subside after contact. May cause moderate eye irritation which may be slow to heal. Vapor may cause eye irritation experienced as mild discomfort and redness. May cause drying and flaking of the skin.

Indication of any immediate medical attention and special treatment needed:

Note to physicians
Treatment based on sound judgment of physician and individual reactions of patient. If burn is present, treat as any thermal burn, after decontamination. Carboxyhemoglobinemia may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias. Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs such as epinephrine unless absolutely necessary. Maintain adequate ventilation and oxygenation of the patient. Because rapid absorption may occur through 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.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the substance or mixture
Use water spray to cool fire-exposed containers and structures. Vapors are heavier than air and may accumulate in low areas. Vapors may travel along the ground to be ignited at distant locations. Stay upwind. Isolate and restrict area access. Move containers from fire area if you can do it without risk. Withdraw immediately in case of rising sound from

venting safety devices or discoloration of tank. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure build-up which could result in container rupture. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Although this product does not have a flash point it can burn at room temperature. Water fog, applied gently may be used as a blanket for fire extinguishments.

Hazardous combustion products
Hydrogen chloride. Chlorine. Phosgene. Decomposition products can include and are not limited to:.

Special protective equipment for fire-fighters
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Do not breathe dust/fume/gas/mist/vapors/spray.

Environmental precautions

See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear all protective equipment. Do not cut, drill, grind, weld or perform similar operations on or near containers. Containers, even those that have been emptied, will retain product residue and vapor and should be handled as if they were full until they have been cleaned. Manual operations (such as cold cleaning or paint stripping) using methylene chloride should be engineered to provide for confining solvent vapors, adequate ventilation and/or respiratory protection to reduce the potential for overexposure to vapors. To avoid uncontrolled emissions vent vapor from container to storage tank. Do not enter these areas where vapors of this product are suspected unless special breathing apparatus is used and an observer is present for assistance. Vapors are heavier than air and will collect in low areas.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed. Product has a shelf life of 24 months. Store in a cool, dry, well ventilated area. Significant vapor pressure (greater than 5 psi) can be generated above 55 °F. This may result in venting or rupture. Do not store in aluminum, zinc, aluminum alloys and plastics. Product should not be packaged in aluminum aerosol cans or with finely divided aluminum or its alloys in an aerosol can. Product is denser than water.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits .

Chemical Name	Alberta OEL	British Columbia OEL	Ontario	Quebec OEL	Exposure Limit - ACGIH	Immediately Dangerous to Life or Health - IDLH

Dichloromethane 75-09-2	TWA: 50 ppm TWA: 174 mg/m^3	TWA: 25 ppm	TWA: 50 ppm	TWA: 50 ppm TWA: 174 mg/m^3	50 ppm TLV-TWA	2300 ppm

Consult local authorities for recommended exposure limits

Appropriate engineering controls

Engineering controls
Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Lethal concentrations may exist in areas with poor ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection
Chemical goggles; also wear a face shield if splashing hazard exists.

Hand protection
Butyl rubber gloves. Polyvinyl alcohol gloves. Viton gloves. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials as well as the instructions/specifications provided by the glove supplier. Use gloves chemically resistant to this material, examples of preferred glove barrier materials include:. Examples of acceptable glove barrier materials include:.

Skin and body protection
Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential. Consideration must be given both to durability as well as permeation resistance. Impervious clothing.

Respiratory protection
Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration. For emergency and other conditions where the exposure guideline may be exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure airline with auxiliary self-contained air supply.

General hygiene considerations
Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

Physical state	Liquid
Color	Colorless
Odor	Characteristic
Odor threshold	No information available

PROPERTIES	**Values**	**Remarks • Method**
pH	No data available	none known
Melting point / freezing point	-97 °C / -143 °F	
Initial boiling point/boiling range	39.8 °C / 104 °F	none known
Flash point	No data available	Tag Closed Cup
Evaporation rate	28	
Flammability (solid, gas)	No data available	none known
Flammability Limit in Air		none known
Upper flammability limit:	22	

Lower flammability limit:	14	
Vapor pressure	355 mmHg @ 20°C	
Relative vapor density	2.93	
Specific Gravity	1.320	
Water solubility	2.0 g/100 g @ 25 C	
Solubility in other solvents	No data available	
Partition coefficient	No data available	none known
Autoignition temperature	556 °C / 1033 °F	
Decomposition temperature	No data available	none known
Kinematic viscosity	0.41 mPa.s Dynamic	
Dynamic viscosity	No data available	none known
Explosive properties	No information available.	
Oxidizing properties	No information available.	
Molecular weight	84.94 g/mol	
VOC Percentage Volatility	No information available	
Liquid Density	No information available	
Bulk density	No information available	

10. STABILITY AND REACTIVITY

Reactivity/Chemical Stability
Stable under normal conditions

Possibility of hazardous reactions
Water contamination may cause corrosion of metals due to formation of hydrochloric acid.

Hazardous polymerization
Will not occur.

Conditions to avoid
Avoid excessive heat, open flames and all ignition sources. Direct sunlight.

Incompatible materials
Strong bases. Oxidizing agents. Amines. Aluminum powders, magnesium powders, potassium, sodium and zinc powder. Aluminum and alloys.

Hazardous decomposition products
Decomposition products can include and are not limited to:. Hydrogen chloride. Chlorine. Phosgene.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death. Excessive exposure may cause irritation to upper respiratory tract (nose and throat). May cause carboxyhemoglobinemia, thereby impairing the blood's ability to transport oxygen. Minimal anesthetic or narcotic effects may be seen in the range of 500-1000 ppm methylene chloride. 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 heartbeats).

Eye contact
May cause slight corneal injury. May cause pain disproportionate to the level of irritation to eye tissue. May cause moderate eye irritation which may be slow to heal. Vapor may cause eye irritation experienced as mild discomfort and redness.

Skin contact

Prolonged or repeated exposure may cause skin irritation, even a burn. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Extensive skin contact with methylene chloride, such as immersion, may cause an intense burning sensation, followed by a cold, numb feeling which will subside after contact. May cause drying and flaking of the skin.

Ingestion
Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury. Single dose oral toxicity is low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury. Swallowing larger amounts may cause injury.

Information on toxicological effects

Symptoms
Observations in animals include irritation to the upper respiratory tract, liver or kidney effects. Exposure to this material may decrease the oxygen-carrying capacity of the blood.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 1,602.00 mg/kg

Unknown acute toxicity No information available

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Dichloromethane 75-09-2	= 1600 mg/kg (Rat)	Not available	= 53 mg/L (Rat) 6 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation
Prolonged or repeated exposure may cause skin irritation, even a burn. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Extensive skin contact with methylene chloride, such as immersion, may cause an intense burning sensation, followed by a cold, numb feeling which will subside after contact. May cause drying and flaking of the skin.

Serious eye damage/eye irritation
May cause slight corneal injury. May cause pain disproportionate to the level of irritation to eye tissue. May cause moderate eye irritation which may be slow to heal. Vapor may cause eye irritation experienced as mild discomfort and redness.

Respiratory or skin sensitization
No information available.

Germ cell mutagenicity
No information available.

Carcinogenicity
No additional information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Dichloromethane 75-09-2	A3	Group 2A	Reasonably Anticipated	X

Legend
ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2A - Probably Carcinogenic to Humans
NTP (National Toxicology Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity
Methylene chloride can pass through the placenta and can be excreted in maternal milk. Did not cause birth defects in animals; other effects were seen in the fetus only at doses with caused toxic effects to the mother.

Specific target organ systemic toxicity - single exposure
May cause respiratory irritation. May cause drowsiness or dizziness.

Specific target organ systemic toxicity - repeated exposure
Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard
No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity
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Chemical Name	Ecotoxicity - Freshwater Algae Data	Ecotoxicity - Fish Species Data	Toxicity to microorganisms	Crustacea
Dichloromethane 75-09-2	500 mg/L EC50 Pseudokirchneriella subcapitata 72 h 500 mg/L EC50 Pseudokirchneriella subcapitata 96 h	140.8 - 277.8 mg/L LC50 (Pimephales promelas) 96 h flow-through 262 - 855 mg/L LC50 (Pimephales promelas) 96 h static 193 mg/L LC50 (Lepomis macrochirus) 96 h flow-through 193 mg/L LC50 (Lepomis macrochirus) 96 h static	Not available	EC50: 1532 - 1847mg/L (48h, Daphnia magna) EC50: =190mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation No information available.

Component Information

Chemical Name	Partition coefficient
Dichloromethane 75-09-2	1.25

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Do not reuse empty containers.

14. TRANSPORT INFORMATION

TDG (Canada):

UN Number	UN1593
Shipping name	DICHLOROMETHANE
Class	6.1
Packing Group	III
Marine pollutant	Not available.

DOT (U.S.)

UN Number	UN1593
Shipping name	DICHLOROMETHANE
Class	6.1
Packing Group	III
Marine pollutant	Not available

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Regulatory Rules

Chemical Name	CERCLA/SARA - Section 302:	SARA (311, 312) Hazard Class:	CERCLA/SARA - Section 313:
Dichloromethane - 75-09-2	Not Listed	Listed	Listed

International Inventories

TSCA	Complies
DSL/NDSL	Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA:	**Health hazards** 1	**Flammability** 1	**Instability** 0	**Physical and chemical properties** -
HMIS Health Rating:	**Health hazards** * 2	**Flammability** 1	**Physical hazards** 0	**Personal protection** X

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Prepared By: The Environment, Health and Safety Department of Univar Canada Ltd.

Preparation Date: 12/Aug/2017
Revision Date: 12/Aug/2017

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End of Safety Data Sheet