Material Safety Data Sheet
LA1629
Methylene chloride

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id: LA1629
Product Name: Methylene chloride
Synonyms: Dichloromethane.
Chemical Family: Halogenated aliphatic hydrocarbon.
Application: Solvent. Paint stripper

Distributed By:
Univar Canada Ltd.
9800 Van Horne Way
Richmond, BC
V6X 1W5

Prepared By: The Environment, Health and Safety Department of Univar Canada Ltd.
Preparation date of MSDS: 27/Apr/2015
Telephone number of preparer: 1-866-686-4827

24-Hour Emergency Telephone Number (CANUTEC): (613) 996-6666

2. HAZARDS IDENTIFICATION

Potential Acute Health Effects:
Eye Contact: May cause pain disproportionate to the level of irritation to eye tissue. May cause moderate eye irritation which may be slow to heal. May cause slight corneal injury. Vapor may cause eye irritation experienced as mild discomfort and redness.
Skin Contact: Prolonged or repeated exposure may cause skin irritation, even a burn. May cause drying and flaking of the skin. 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. Prolonged skin contact is unlikely to result in absorption of harmful amounts.
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).
Ingestion: 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. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.
3. COMPOSITION/ INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Percentage (W/W)</th>
<th>LD50s and LC50s Route &amp; Species:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichloromethane 75-09-2</td>
<td>99.9</td>
<td>Oral LD50 Rat &gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

Note: No additional remark.

4. FIRST AID MEASURES

**Eye Contact:** Remove contact lenses, if present, after the first five minutes, then continue rinsing. Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

**Skin Contact:** Wash with soap and water. Remove contaminated clothing and launder before reuse.

**Inhalation:** Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

**Notes to Physician:** Treatment based on sound judgment of physician and individual reactions of 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. 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.

5. FIRE FIGHTING MEASURES

**Flash Point:** None.

**Flash Point Method:** Tag Closed Cup

**Autoignition Temperature:** 556°C /1033°F

**Flammable Limits in Air (%):** Lower: 14% Upper: 22%

**Extinguishing Media:** Use DRY chemicals, CO2, alcohol foam or water spray.

**Special Exposure Hazards:** Isolate and restrict area access. Stay upwind. Although this product does not have a flash point it can burn at room temperature. Vapors are heavier than air and may accumulate in low areas. Vapors may travel along the ground to be ignited at distant locations. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure build-up which could result in container rupture. Use water spray to cool fire-exposed containers and structures. Water fog, applied gently may be used as a blanket for fire extinguishments. 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.


**Special Protective Equipment:** Fire fighters should wear full protective clothing, including self-contained breathing equipment.

**NFPA RATINGS FOR THIS PRODUCT ARE:** HEALTH 2, FLAMMABILITY 1, INSTABILITY 0

**HMIS RATINGS FOR THIS PRODUCT ARE:** HEALTH 2, FLAMMABILITY 1, REACTIVITY 0

6. ACCIDENTAL RELEASE MEASURES

**Personal Precautionary Measures:** Wear appropriate protective equipment.

**Environmental Precautionary Measures:** Prevent entry into sewers or streams, dike if needed.

**Procedure for Clean Up:** Isolate hazard area and restrict access. Ventilate area. Small spills: soak up with absorbent material and scoop into containers. Large spills: prevent contamination of waterways. Dike and pump into suitable containers. Clean up residual with absorbent material, place in appropriate container and flush with water.
7. HANDLING AND STORAGE

Handling: To avoid uncontrolled emissions vent vapor from container to storage tank. 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. Do not cut, drill, grind, weld or perform similar operations on or near containers. Vapors are heavier than air and will collect in low areas. 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. 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. Wear all protective equipment.

Storage: Keep containers tightly closed. 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. Product has a shelf life of 24 months.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

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.

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.

Gloves:
Use gloves chemically resistant to this material, examples of preferred glove barrier materials include: Polyvinyl alcohol gloves. Viton gloves. Examples of acceptable glove barrier materials include: Butyl rubber 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.

Skin 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.

Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Exposure Limit - ACGIH</th>
<th>Exposure Limit - OSHA</th>
<th>Immediately Dangerous to Life or Health - IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichloromethane</td>
<td>50 ppm TLV-TWA</td>
<td>1000 ppm Ceiling 500 ppm TWA 2000 ppm STEL</td>
<td>2300 ppm</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Color: Colorless
Odor: Characteristic.
pH: Not Available.
Specific Gravity: 1.320
Boiling Point: 39.8°C / 104°F
Freezing/Melting Point: -96.7°C / -142°F
Vapor Pressure: 355 mmHg @ 20°C
Vapor Density: 2.93
% Volatile by Volume: 100%
Evaporation Rate: 28
Solubility: 2.0 g/100 g @ 25°C
VOCs: Not Available.
9. PHYSICAL AND CHEMICAL PROPERTIES

Viscosity: 0.41 mPa.s Dynamic
Molecular Weight: 84.94 g/mol
Other: Not Available.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: Avoid excessive heat, open flames and all ignition sources. Direct sunlight.
Hazardous Decomposition Products: Decomposition products can include and are not limited to: Hydrogen chloride. Chlorine. Phosgene.
Additional Information:
Water contamination may cause corrosion of metals due to formation of hydrochloric acid.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure
Ingestion: 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. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.
Skin Contact: Prolonged or repeated exposure may cause skin irritation, even a burn. May cause drying and flaking of the skin. 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. Prolonged skin contact is unlikely to result in absorption of harmful amounts.
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 pain disproportionate to the level of irritation to eye tissue. May cause moderate eye irritation which may be slow to heal. May cause slight corneal injury. Vapor may cause eye irritation experienced as mild discomfort and redness.

Additional Information: 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.

Acute Test of Product:
Acute Oral LD50: Not Available.
Acute Dermal LD50: Not Available.
Acute Inhalation LC50: Not Available.

Carcinogenicity:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>IARC - Carcinogens</th>
<th>ACGIH - Carcinogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichloromethane</td>
<td>Group 2B</td>
<td>A3</td>
</tr>
</tbody>
</table>

Carcinogenicity Comment: No additional information available.

Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity: 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.
12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Ecotoxicity - Fish Species Data</th>
<th>Acute Crustaceans Toxicity:</th>
<th>Ecotoxicity - Freshwater Algae Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichloromethane</td>
<td>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</td>
<td>Not Available.</td>
<td>500 mg/L EC50 Pseudokirchneriella subcapitata 72 h 500 mg/L EC50 Pseudokirchneriella subcapitata 96 h</td>
</tr>
</tbody>
</table>

Other Information:
Ecotoxicity: Material is practically non-toxic to aquatic organisms on an acute basis (LC50 or EC50 >100 mg/L in the most sensitive species tested).
Bioconcentration potential is low. Potential for mobility in soil is very high. Not readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.
Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

DOT (U.S.):
DOT Shipping Name: DICHLOROMETHANE
DOT Hazardous Class 6.1
DOT UN Number: UN1593
DOT Packing Group: III
DOT Reportable Quantity (lbs): Not Available.
Note: No additional remark.
Marine Pollutant: No.

TDG (Canada):
TDG Shipping Name: DICHLOROMETHANE
Hazard Class: 6.1
UN Number: UN1593
Packing Group: III
Note: No additional remark.
Marine Pollutant: No.
15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

**U.S. Regulatory Rules**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CERCLA/SARA - Section 302:</th>
<th>SARA (311, 312) Hazard Class:</th>
<th>CERCLA/SARA - Section 313:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichloromethane</td>
<td>Not Listed.</td>
<td>Listed</td>
<td>Listed</td>
</tr>
</tbody>
</table>

California Proposition 65: Listed.
MA Right to Know List: Listed.
New Jersey Right-to-Know List: Listed.
Pennsylvania Right to Know List: Listed.

**Additional Notes:** Not Available.

**WHMIS Hazardous Class:**
D1B  TOXIC MATERIALS
D2A  VERY TOXIC MATERIALS
D2B  TOXIC MATERIALS
16. OTHER INFORMATION

Additional Information: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Disclaimer: NOTICE TO READER:
Univar, expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from your local Univar Sales Office.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Univar makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Univar's control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.

***END OF MSDS***