SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Methylene Chloride

Synonyms: Dichloromethane, Methylene Dichloride

Uses: Paint remover formulations, vapor depressant in aerosol applications, general cleaning solvent, foam blowing agent.

Uses Advised Against: Bathtub stripping. Not for use in residential home or workshop areas not properly ventilated or not designed to accommodate the safe use of this chemical.

Chemical Family: Saturated aliphatic halogenated solvent

Details of the supplier of the safety data sheet
Distributor
Silver Fern Chemical, Inc.
2226 Queen Anne Avenue North, Suite C
Seattle WA 98109, USA
Phone: 1-866-282-3384

Emergency phone number
24 Hour Emergency Contact
Infotrac 1-800-535-5053 (USA & Canada)
Outside USA & Canada 1-352-323-3500

Business Contact
Customer Service: 1-866-282-3384
info@silverfernchemical.com
Note: The Special, Aerosol, and Degreasing Grades contain small amounts of a propylene oxide stabilizer. The Technical and Decaffeination Grades do not.

SECTION 2. HAZARDS IDENTIFICATION

OSHA REGULATORY STATUS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

EMERGENCY OVERVIEW:

Color: Colorless
Physical State: Liquid
Appearance: Clear
Odor: Mildly sweet odor, Chloroform-like odor

Signal Word: WARNING

MAJOR HEALTH HAZARDS: MAY CAUSE DROWSINESS OR DIZZINESS. CAUSES SKIN IRRITATION. CAUSES EYE IRRITATION. MAY CAUSE RESPIRATORY IRRITATION. CAUSES DAMAGE TO CARDIOVASCULAR SYSTEM INCLUDING ELEVATED CARBOXYHEMOGLOBIN LEVELS. MAY CAUSE DAMAGE TO BLOOD AND LIVER THROUGH PROLONGED OR REPEATED EXPOSURES. SUSPECTED OF CAUSING CANCER.

PRECAUTIONARY STATEMENTS: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Do not breathe gas, fumes, vapor, mist, or spray. Wear protective gloves, protective clothing, eye, and face protection. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

ADDITIONAL HAZARD INFORMATION: Exposure in an enclosed or poorly-ventilated area may be very harmful. Methylene chloride can be metabolized to carbon monoxide (CO), which is then very tightly bound to hemoglobin. This complex is called carboxyhemoglobin (COHb) and results in a reduction in the oxygen carrying capacity of the blood. This product may be absorbed through the skin, causing systemic effects.

GHS CLASSIFICATION:

<table>
<thead>
<tr>
<th>GHS: CONTACT HAZARD - SKIN:</th>
<th>Category 2 - Causes skin irritation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS: CONTACT HAZARD - EYE:</td>
<td>Category 2B - Causes eye irritation</td>
</tr>
<tr>
<td>GHS: TARGET ORGAN TOXICITY (SINGLE EXPOSURE):</td>
<td>Category 1 - Causes damage to cardiovascular system including elevated carboxyhemoglobin levels</td>
</tr>
<tr>
<td></td>
<td>Category 3 - May cause drowsiness or dizziness</td>
</tr>
<tr>
<td></td>
<td>Category 3 - May cause respiratory tract irritation</td>
</tr>
</tbody>
</table>

SAFETY DATA SHEET
METHYLENE CHLORIDE

GHS: TARGET ORGAN TOXICITY (REPEATED EXPOSURE):
Category 2 - May cause damage to Blood, Liver through prolonged or repeated exposure

GHS: CARCINOGENICITY:
Category 2 - Suspected of causing cancer.

UNKNOWN ACUTE TOXICITY: Not applicable. 100% of this product consists of ingredient(s) of known acute toxicity.

GHS SYMBOL: Exclamation mark, Health hazard

GHS SIGNAL WORD: WARNING

GHS HAZARD STATEMENTS:

GHS - Health Hazard Statement(s)
Causes skin irritation
Causes eye irritation
May cause drowsiness or dizziness
May cause respiratory irritation
Causes damage to cardiovascular system including elevated carboxyhemoglobin levels
May cause damage to Blood, Liver through prolonged or repeated exposure
Suspected of causing cancer

GHS - Precautionary Statement(s) - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Do not breathe gas, fumes, vapor, mist, or spray
Use only outdoors or in a well-ventilated area
Wear protective gloves, protective clothing, eye, and face protection
Wash thoroughly after handling
Do not eat, drink or smoke when using this product

GHS - Precautionary Statement(s) - Response
IF INHALED: Remove person to fresh air and keep comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF ON SKIN: Wash with plenty of water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse
Specific treatment (see First Aid information on product label and/or Section 4 of the SDS)
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 advice/attention
IF exposed or concerned: Get medical advice/attention
Get medical advice/attention if you feel unwell
METHYLENE CHLORIDE

GHS - Precautionary Statement(s) - Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up

GHS - Precautionary Statement(s) - Disposal
Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations.

Hazards Not Otherwise Classified (HNOC)
Exposure in an enclosed or poorly-ventilated area may be very harmful
This material may be absorbed across the skin causing systemic effects

See Section 11: TOXICOLOGICAL INFORMATION

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Dichloromethane, Methylene Dichloride

Contains Methylene chloride (Dichloromethane), Propylene oxide

<table>
<thead>
<tr>
<th>Component</th>
<th>Percent [%]</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene chloride (Dichloromethane)</td>
<td>99.97 - 100</td>
<td>75-09-2</td>
</tr>
<tr>
<td>Propylene oxide</td>
<td>Proprietary</td>
<td>75-56-9</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

INHALATION: If inhalation of this material occurs and adverse effects result, move person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician. See Notes to Physician below and Section 11 for more information.

SKIN CONTACT: If on skin, wash with plenty of water. If skin irritation occurs, get medical advice/attention. Take off contaminated clothing and wash before reuse. Treat any skin irritation symptomatically. The specific treatment is flushing affected area with plenty of water.

EYE CONTACT: 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.

INGESTION: If swallowed, rinse mouth. Contact a poison center or doctor/physician if you feel unwell.

Most Important Symptoms/Effects (Acute and Delayed):

Acute Symptoms/Effects: Listed below.
Inhalation (Breathing): Respiratory System Effects: Pulmonary irritation, cough, chest discomfort, shortness of breath, headache, euphoria, nausea and vomiting, respiratory irritation. Changes in heart rate, paresthesias, sleepiness and seizures are described. Heavy exposure can result in muscle weakness or hypotonia, syncope, stupor followed by loss of consciousness. Complications include cardiac abnormalities and elevations of carboxyhemoglobin. Coma with respiratory depression may result in death.

Skin: Skin Irritation. Skin exposure may cause intense burning sensation, mild redness and numbness. Severe burns may develop following prolonged exposures.

Eye: Eye Irritation. Mild eye irritation may occur when exposed to vapor. Splash of liquid in the eye can cause conjunctival irritation and burning pain. Prolonged contact can cause severe corneal burns.

Ingestion (Swallowing): Ingesting this material may cause nausea, vomiting, mucosal irritation with burning sensation. System effects include central nervous system depression, headache, syncope, seizures, and coma. Ingesting concentrated solutions of this material can cause corrosion of the GI tract and perforation.

Delayed Symptoms/Effects:
- May cause cancer
- Repeated or prolonged exposure may cause blood and liver damage

Interaction with Other Chemicals Which Enhance Toxicity: May potentiate other agents that cause central nervous system (CNS) and respiratory system depression, such as alcohol, opiates.

Medical Conditions Aggravated by Exposure: May increase potential for cardiac arrhythmia. May increase carboxyhemoglobin levels. May worsen respiratory system disorders such as asthma and other breathing disorders. May worsen central nervous system disorders such as seizure disorders or impair central nervous system functions. May worsen ischemic heart disease.

Protection of First-Aiders: Protect against vapor/gas exposure. Protect against liquid contamination. Most cases of serious toxicity or death have been associated with stripping operations and or use in enclosed spaces.

Notes to Physician: Acute symptoms from low airborne levels are generally mild and self limiting following removal from exposure, and should require no specific treatment. The primary exposure route is inhalation. Symptomatic exposure should be treated with oxygen. The primary toxicity is central nervous system depression. May cause cardiac arrhythmias. Treatment with non-catecholamine agent is theoretically preferred. Treat seizures with benzodiazepines. Methylene chloride is metabolized to carbon monoxide. Carbon monoxide levels may increase after exposure has ceased. Treat following carbon monoxide recommendations. For ingestion, protect the airway and do not administer fluids or attempt to decontaminate due to the risk of vomiting and aspiration. Protect the airway. May dissolve some medical grade plastics. Systemic toxicity from skin absorption is unlikely. There is no antidote.

SECTION 5. FIRE-FIGHTING MEASURES

Fire Hazard: Slight fire hazard. This material may burn, but does not readily ignite.

Extinguishing Media: Use foam, dry chemical, CO2, or water spray.
METHYLENE CHLORIDE

**Component** | **Immediately Dangerous to Life/ Health (IDLH)**
---|---
Methylene chloride (Dichloromethane) 75-09-2 | 2300 ppm IDLH
Propylene oxide 75-56-9 | 400 ppm IDLH

**Hazardous Combustion Products:**
Hydrogen chloride, Chlorine, Phosgene, Oxides of carbon

**Sensitivity to Mechanical Impact:**
Not sensitive.

**Sensitivity to Static Discharge:**
Not sensitive.

**Lower Flammability Level (air):** 12% @ 100°C

**Upper Flammability Level (air):** 19% @100°C

**Flash point:** None

**Auto-ignition Temperature:** 1033 °F (556.1 °C)

### SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:**
Most vapors are heavier than air and will spread along ground and collect in low or confined areas (drains, basements, tanks). Do not breathe vapors, mist, or spray. Ventilate closed spaces before entering. Exposure in an enclosed or poorly-ventilated area may be very harmful. Keep unnecessary people away, isolate hazard area and deny entry. Evacuation of surrounding area may be necessary for large spills. Shut off ventilation system if needed. Do not get in eyes, on skin or on clothing. Wear appropriate personal protective equipment recommended in Section 8 of the SDS.

**Methods and Materials for Containment and Cleaning Up:**
Stop leak if possible without personal risk. Ventilate closed spaces before entering. Completely contain spilled materials with dikes, sandbags, etc. Remove contaminated soil or collect with appropriate absorbent and place into suitable container. Keep container tightly closed and properly labeled. Liquid material may be removed with a properly rated vacuum truck. Properly dispose of in accordance with all applicable regulations. See Section 13, Disposal considerations, for additional information.

**Environmental Precautions:**
Keep out of water supplies, sewers and soil. Avoid discharge into drains, surface water or groundwater. Releases should be reported, if required, to appropriate regulatory agencies.
SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling:
Do not breathe gas, vapors, or spray mist. Most vapors are heavier than air and will spread along ground and collect in low or confined areas (drains, basements, tanks). Avoid contact with skin, eyes and clothing. Wear personal protective equipment as described in Exposure Controls/Personal Protection (Section 8) of the SDS. Wash thoroughly after handling. Do not taste or swallow. When using, do not eat, drink or smoke.

Safe Storage Conditions:
Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Store in a cool, dry area. Store in a well-ventilated area. Prevent water or moist air from entering storage tanks or containers. Do not enter confined spaces unless adequately ventilated. Do not store in aluminum container or use aluminum fittings or transfer lines. To minimize the decomposition of dichloromethane, storage containers should be galvanized or lined with a phenolic coating. Protect from sunlight. Do not reuse drum without recycling or reconditioning in accordance with any applicable federal, state or local laws. Do not use cutting or welding torches, open flames or electric arcs on empty or full containers. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet).

Incompatibilities/ Materials to Avoid:
Aluminum, magnesium, zinc, and their alloys, Bases, Oxygen, Amines, Reactive metals, Sodium, Potassium, Strong oxidizing agents, Alkali metals

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Regulatory Exposure Limit(s): Listed below for the product components that have regulatory occupational exposure limits (OEL’s) established.

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA Final PEL TWA</th>
<th>OSHA Final PEL STEL</th>
<th>OSHA Final PEL Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene chloride (Dichloromethane) 75-09-2</td>
<td>25 ppm</td>
<td>125 ppm</td>
<td>-----</td>
</tr>
<tr>
<td>Propylene oxide 75-56-9</td>
<td>100 ppm 240 mg/m³</td>
<td>-----</td>
<td>-----</td>
</tr>
</tbody>
</table>

OEL: Occupational Exposure Limit; OSHA: United States Occupational Safety and Health Administration; PEL: Permissible Exposure Limit; TWA: Time Weighted Average; STEL: Short Term Exposure Limit

NON-REGULATORY EXPOSURE LIMIT(S): Listed below for the product components that have advisory (non-regulatory) occupational exposure limits (OEL’s) established.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>ACGIH TWA</th>
<th>ACGIH STEL</th>
<th>ACGIH Ceiling</th>
<th>OSHA TWA (Vacated)</th>
<th>OSHA STEL (Vacated)</th>
<th>OSHA Ceiling (Vacated)</th>
</tr>
</thead>
</table>
METHYLENE CHLORIDE

SDS Revision Date: 03-Sep-2015

<table>
<thead>
<tr>
<th>Component</th>
<th>Immediately Dangerous to Life/ Health (IDLH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene chloride (Dichloromethane) 75-09-2</td>
<td>2300 ppm IDLH</td>
</tr>
<tr>
<td>Propylene oxide 75-56-9</td>
<td>400 ppm IDLH</td>
</tr>
</tbody>
</table>

- The Non-Regulatory United States Occupational Safety and Health Administration (OSHA) limits, if shown, are the Vacated 1989 PEL’s (vacated by 58 FR 35338, June 30, 1993).

- The American Conference of Governmental Industrial Hygienists (ACGIH) is a voluntary organization of professional industrial hygiene personnel in government or educational institutions in the United States. The ACGIH develops and publishes recommended occupational exposure limits each year called Threshold Limit Values (TLVs) for hundreds of chemicals, physical agents, and biological exposure indices.

ENGINEERING CONTROLS: Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits. Monitoring should be performed regularly in accordance with 29 CFR 1910.1052(d) to determine exposure level(s).

PERSONAL PROTECTIVE EQUIPMENT:

Eye Protection: Wear safety glasses with side-shields. Wear chemical safety goggles and/or a face-shield to protect against skin and eye contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin and Body Protection: Wear chemical resistant clothing and footwear to prevent skin contact.

Hand Protection: Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.

Protective Material Types: Trellchem®, Tychem®, Viton®, Polyvinyl alcohol (PVA)

Respiratory Protection: Respiratory protection requirements for methylene chloride are in 29 CFR 1910.1052(f). When concentrations are above the IDLH, or are unknown, or during spills and/or emergencies, use any supplied-air respirator that has a facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Appearance: Clear
Color: Colorless
METHYLENE CHLORIDE

Odor: Mildly sweet odor, Chloroform-like odor
Odor Threshold [ppm]: 200-300 ppm (causes olfactory fatigue).
Molecular Weight: 84.94
Chemical Family: Saturated aliphatic halogenated solvent
Boiling Point/Range: 104 °F (40 °C)
Freezing Point/Range: -139 °F (-95 °C).
Melting Point/Range: -95 (°C)
Vapor Pressure: 350 mmHg @ 20°C and 435 mmHG @ 25°C
Vapor Density (air=1): 2.9
Relative Density/Specific Gravity (water=1): 1.31 - 1.32 @ 25°C
Water Solubility: 1.32% @ 25 C or 13,000 mg/l at 25 °C
pH: Not applicable
Vollatility: 100% by volume
Evaporation Rate (ether=1): 0.7
Flash point: None
Lower Flammability Level (air): 12% @ 100°C
Upper Flammability Level (air): 19% @100°C
Auto-ignition Temperature: 1033 °F (556.1 °C)
Viscosity: - 0.41 (cps) @ 77°F

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Reacts violently with active metals.

Chemical Stability: Stable at normal temperatures and pressures.

Possibility of Hazardous Reactions:
Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.
Reacts violently with active metals. Avoid contact with incompatible substances and conditions due to generation of phosgene and other toxic and irritating substances.

Conditions to Avoid:
(e.g., static discharge, shock, or vibration) -. None known.

Incompatibilities/ Materials to Avoid:

Hazardous Decomposition Products: hydrogen chloride, chlorine, phosgene, oxides of carbon

Hazardous Polymerization: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

IRRITATION DATA: Methylene Chloride: 810 mg/24 hour(s) skin-rabbit severe; 100 mg/24 hour(s) skin-rabbit moderate; 162 mg eyes-rabbit moderate; 10 mg eyes-rabbit mild; 500 mg/24 hour(s) eyes-rabbit mild
METHYLENE CHLORIDE

TOXICITY DATA:

PRODUCT TOXICITY DATA: Methylene Chloride

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral:</th>
<th>LD50 Dermal:</th>
<th>LC50 Inhalation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene chloride (Dichloromethane) 75-09-2</td>
<td>985 mg/kg (rat)</td>
<td>&gt; 2,000 mg/kg (Rat)</td>
<td>76000 mg/m³ (4 hr-Rat)</td>
</tr>
<tr>
<td>Propylene oxide 75-56-9</td>
<td>520 mg/kg (Rat)</td>
<td>1244 mg/kg (Rabbit)</td>
<td>0.948 mg/L (4 hr-Rat)</td>
</tr>
</tbody>
</table>

COMPONENT TOXICITY DATA:
Note: The component toxicity data is populated by the LOLI database and may differ from the product toxicity data given.

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral:</th>
<th>LD50 Dermal:</th>
<th>LC50 Inhalation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene chloride (Dichloromethane) 75-09-2</td>
<td>1600 mg/kg (Rat)</td>
<td>-----</td>
<td>53 mg/L (6 hr-Rat)</td>
</tr>
<tr>
<td>Propylene oxide 75-56-9</td>
<td>520 mg/kg (Rat)</td>
<td>1244 mg/kg (Rabbit)</td>
<td>0.948 mg/L (4 hr-Rat)</td>
</tr>
</tbody>
</table>

POTENTIAL HEALTH EFFECTS:

Eye contact: Vapors may cause eye irritation. Contact may cause tearing, redness, a stinging or burning feeling, swelling, and blurred vision.

Skin contact: May cause effects ranging from mild irritation to severe pain, and possibly burns, depending on the intensity of contact. Skin absorption may occur.

Inhalation: May cause upper respiratory tract irritation and central nervous system depression with symptoms such as confusion, lightheadedness, nausea, vomiting, headache, and fatigue. Causes formation of carbon monoxide in blood which may affect the cardiovascular system and central nervous system. Continued exposure may cause unconsciousness and even death.

Ingestion: May cause nausea or vomiting. If vomiting results in aspiration, chemical pneumonia could occur. Absorption through the gastrointestinal tract may produce central nervous system depression.

Chronic Effects: May cause liver damage. May cause cancer based on animal data.

SIGNS AND SYMPTOMS OF EXPOSURE:

Inhalation (Breathing): Respiratory System Effects: Pulmonary irritation, cough, chest discomfort, shortness of breath, headache, euphoria, nausea and vomiting, respiratory irritation. Changes in heart rate, paresthesias, sleepiness and seizures are described. Heavy exposure can result in muscle weakness or hypotonia, syncope, stupor followed by loss of consciousness. Complications include cardiac abnormalities and elevations of carboxyhemoglobin. Coma with respiratory depression may result in death.

Skin: Skin Irritation. Skin exposure may cause intense burning sensation, mild redness and numbness. Severe burns may develop following prolonged exposures.
METHYLENE CHLORIDE

Eye: Eye Irritation. Mild eye irritation may occur when exposed to vapor. Splash of liquid in the eye can cause conjunctival irritation and burning pain. Prolonged contact can cause severe corneal burns.

Ingestion (Swallowing): Ingesting this material may cause nausea, vomiting, mucosal irritation with burning sensation. System effects include central nervous system depression, headache, syncope, seizures, and coma. Ingesting concentrated solutions of this material can cause corrosion of the GI tract and perforation.

TOXICITY:
Dermal exposure results in absorption but at a slower rate than via the oral or inhalation routes of exposure.

CHRONIC TOXICITY:
Liver effects have not been reported in humans, but liver changes have been observed in several long-term studies with laboratory animals. Inhalation of 500 to 3,500 ppm methylene chloride for two years produced only minimal, nonproliferative changes in the liver of Sprague Dawley rats (the no-observed-effect level was equal to 200 ppm) and no liver effects in hamsters. Nonproliferative changes were noted in rats in another study after exposure to 1,000 to 4,000 ppm. Liver enlargement has been observed in mice exposed to 2,000 and 4,000 ppm of methylene chloride for 11 days.

Interaction with Other Chemicals Which Enhance Toxicity: May potentiate other agents that cause central nervous system (CNS) and respiratory system depression, such as alcohol, opiates.

GHS HEALTH HAZARDS:

GHS: CONTACT HAZARD - EYE: Category 2B - Causes eye irritation
GHS: CONTACT HAZARD - SKIN: Category 2 - Causes skin irritation

Skin Absorbent / Dermal Route? Yes.

GHS: CARCINOGENICITY:
Category 2 - Suspected of causing cancer.

Carcinogenicity comment: Methylene chloride is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that are not considered relevant to worker exposure. Available epidemiological studies do not confirm an increased risk of cancer in humans. Available evidence suggests that this material is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure.

<table>
<thead>
<tr>
<th>Component</th>
<th>NTP: Reasonably Anticipated To Be A Human Carcinogen</th>
<th>IARC (GROUP 1): Not listed</th>
<th>IARC (GROUP 2): Group 2</th>
<th>OSHA: Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene chloride (Dichloromethane)</td>
<td>Reasonably Anticipated To Be A Human Carcinogen</td>
<td>Not listed</td>
<td>Group 2</td>
<td>Listed</td>
</tr>
<tr>
<td>Propylene oxide</td>
<td>Reasonably Anticipated To Be A Human Carcinogen</td>
<td>Not listed</td>
<td>Group 2</td>
<td>Listed</td>
</tr>
</tbody>
</table>

SPECIFIC TARGET ORGAN TOXICITY (Single Exposure):
Category 1 - Causes damage to cardiovascular system including elevated carboxyhemoglobin levels
Category 3 - Narcotic Effects
Category 3 - Respiratory Tract Irritation
ECOTOXICITY DATA:

Freshwater Fish Toxicity:
LC50 (Static) Fathead minnow = 310 mg/L 96 hour(s)
LC50 (Static) Bluegill sunfish = 220 mg/L 96 hour(s)

Invertebrate Toxicity:
LC50 Mysid Shrimp = 256 mg/L 96 hour(s); 224 mg/L 48 hour(s)
LC50 Daphnia Magna

FATE AND TRANSPORT:

BIODEGRADATION: Biodegradation may occur in groundwater, but will be very slow compared with evaporation

PERSISTENCE:
AIR: This material released to the atmosphere will degrade by reaction with hydroxyl radicals with a half-life of several months. It is not subject to direct photodegradation. SOIL: On land is expected to evaporate rapidly into the atmosphere due to its high vapor pressure. It is poorly adsorbed to soil and can leach into the groundwater. Calculated Adsorption Coefficient (log KOC) is 1. WATER: This material is subject to rapid evaporation, with estimated evaporative half-lives ranging from 3 to 5.6 hours under moderate mixing condition. This material has a negligible rate of hydrolysis

BIOCONCENTRATION: Bioconcentration potential in aquatic organisms is low with BCF of 2.

SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

Freshwater Fish Toxicity:
LC50 (Static) Fathead minnow = 310 mg/L 96 hour(s)
LC50 (Static) Bluegill sunfish = 220 mg/L 96 hour(s)

Invertebrate Toxicity:
LC50 Mysid Shrimp = 256 mg/L 96 hour(s); 224 mg/L 48 hour(s)
LC50 Daphnia Magna

FATE AND TRANSPORT:

BIODEGRADATION: Biodegradation may occur in groundwater, but will be very slow compared with evaporation

PERSISTENCE:
AIR: This material released to the atmosphere will degrade by reaction with hydroxyl radicals with a half-life of several months. It is not subject to direct photodegradation. SOIL: On land is expected to evaporate rapidly into the atmosphere due to its high vapor pressure. It is poorly adsorbed to soil and can leach into the groundwater. Calculated Adsorption Coefficient (log KOC) is 1. WATER: This material is subject to rapid evaporation, with estimated evaporative half-lives ranging from 3 to 5.6 hours under moderate mixing condition. This material has a negligible rate of hydrolysis

BIOCONCENTRATION: Bioconcentration potential in aquatic organisms is low with BCF of 2.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from material:
Reuse or reprocess, if possible. Keep out of water supplies, sewers and soil. Dispose in accordance with all applicable regulations. May be subject to disposal regulations.
Container Management:
Dispose of container in accordance with applicable local, regional, national, and/or international regulations. Container rinsate must be disposed of in compliance with applicable regulations.

SECTION 14. TRANSPORT INFORMATION

LAND TRANSPORT

U.S. DOT 49 CFR 172.101:

UN NUMBER: UN1593
PROPER SHIPPING NAME: Dichloromethane
HAZARD CLASS / DIVISION: 6.1
PACKING GROUP: III
LABELING REQUIREMENTS: 6.1
RQ (lbs):
  RQ 1,000 Lbs. (Dichloromethane)
  RQ 100 Lbs. (Propylene oxide)

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:

UN NUMBER: UN1593
SHIPPING NAME: Dichloromethane
CLASS OR DIVISION: 6.1
PACKING/RISK GROUP: III
LABELING REQUIREMENTS: 6.1

MARITIME TRANSPORT (IMO / IMDG) Regulated

UN NUMBER: UN1593
PROPER SHIPPING NAME: Dichloromethane
HAZARD CLASS / DIVISION: 6.1
Packing Group: III
LABELING REQUIREMENTS: 6.1

SECTION 15. REGULATORY INFORMATION

U.S. REGULATIONS
METHYLENE CHLORIDE

OSHA REGULATORY STATUS:
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):
If a release is reportable under CERCLA section 103, notify the state emergency response commission and local emergency planning committee. In addition, notify the National Response Center at (800) 424-8802 or (202) 426-2675.

<table>
<thead>
<tr>
<th>Component</th>
<th>CERCLA Reportable Quantities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene chloride (Dichloromethane)</td>
<td>1000 lb (final RQ)</td>
</tr>
<tr>
<td>Propylene oxide</td>
<td>100 lb (final RQ)</td>
</tr>
</tbody>
</table>

SARA EHS Chemical (40 CFR 355.30)
If a release is reportable under EPCRA, notify the state emergency response commission and local emergency planning committee. If the TPQ is met, facilities are subject to reporting requirements under EPCRA Sections 311 and 312.

<table>
<thead>
<tr>
<th>Component</th>
<th>EPCRA RQs</th>
<th>Section 302 Threshold Planning Quantity (TPQs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene oxide</td>
<td>100 lb (EPCRA RQ)</td>
<td>10000 lb TPQ</td>
</tr>
</tbody>
</table>

EPCRA SECTIONS 311/312 HAZARD CATEGORIES (40 CFR 370.10):
Acute Health Hazard, Chronic Health Hazard, Extremely Hazardous

EPCRA SECTION 313 (40 CFR 372.65):
The following chemicals are listed in 40 CFR 372.65 and may be subject to Community Right-to-Know Reporting requirements.

<table>
<thead>
<tr>
<th>Component</th>
<th>Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene chloride (Dichloromethane)</td>
<td>Listed - 0.1 %</td>
</tr>
<tr>
<td>Propylene oxide</td>
<td>0.1 %</td>
</tr>
</tbody>
</table>

OSHA SPECIFICALLY REGULATED SUBSTANCES:
OSHA 29 CFR 1910.1052 (Methylene chloride); The U.S. Department of Labor, Occupational Safety and Health Administration specifically regulates manufacturing, handling and processing of methylene chloride. Such regulations have been published at 29 CFR 1910.1052.

OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119):
Not regulated

NATIONAL INVENTORY STATUS

U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA): All components are listed or exempt.

TSCA 12(b): This product is not subject to export notification.

Canadian Chemical Inventory: All components of this product are listed on either the DSL or the NDSL.

STATE REGULATIONS
California Proposition 65:
This product contains a chemical known to the State of California to cause cancer, and/or birth defects, and/or other reproductive harm as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act.

<table>
<thead>
<tr>
<th>Component</th>
<th>California Proposition 65 Cancer WARNING:</th>
<th>California Proposition 65 CRT List - Male reproductive toxin:</th>
<th>California Proposition 65 CRT List - Female reproductive toxin:</th>
<th>Massachusetts Right to Know Hazardous Substance List</th>
<th>New Jersey Right to Know Hazardous Substance List</th>
<th>New Jersey Special Health Hazards Substance List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene chloride (Dichloromethane) 75-09-2</td>
<td>Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Listed</td>
<td>1255</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Propylene oxide 75-56-9</td>
<td>Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Listed</td>
<td>1615</td>
<td>flammable - fourth degree; mutagen; reactive - second degree</td>
</tr>
</tbody>
</table>

CANADIAN REGULATIONS
- This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations

WHMIS - Classifications of Substances:
- D1B - Poisonous and Infectious Material; Materials causing immediate and serious toxic effects - Toxic material
- D2A - Poisonous and Infectious Material; Materials causing other toxic effects - Very toxic material
- D2B - Poisonous and Infectious Material; Materials causing other toxic effects - Toxic material

SECTION 16. OTHER INFORMATION

Prepared by: OxyChem Corporate HESS - Product Stewardship
Rev. Date: 03-Sep-2015

HMIS: (SCALE 0-4) (Rated using National Paint & Coatings Association HMIS: Rating Instructions, 2nd Edition)
Health Rating: 2* Flammability Rating: 1 Reactivity Rating: 0

NFPA 704 - Hazard Identification Ratings (SCALE 0-4)
Health Rating: 2 Flammability: 1 Reactivity Rating: 0
DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.