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LABORATORY PRODUCTS
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# Dichloromethane

## 1 PRODUCT AND COMPANY IDENTIFICATION

| | |
|---|---|
| **Product Identifier:** | Dichloromethane |
| **Synonyms:** | Methylene Chloride |
| **SDS Number:** | R-021 |
| **Revision Date:** | 3/12/2019 |
| **Version:** | 1.0 |
| **Supplier Details:** | High Valley Products, Inc.<br>1134 West 850 North<br>Centerville, Utah 84014 |
| **Phone:** | 801-295-9591 |
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| **Emergency:** | PERS: 800-633-8253 |

## 2 HAZARDS IDENTIFICATION

### Classification of Substance

**GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):**

Health, Skin corrosion/irritation, 2
Health, Carcinogenicity, 2
Health, Specific target organ toxicity - Repeated exposure, 2
Health, Serious Eye Damage/Eye Irritation, 2 A
Health, Specific target organ toxicity - Single exposure, 3

### GHS Label Elements, Including Precautionary Statements

**GHS Signal Word:** WARNING

**GHS Hazard Pictograms:**

**GHS Hazard Statements:**

H315 - Causes skin irritation
H351 - Suspected of causing cancer
H373 - May cause damage to organs through prolonged or repeated exposure
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

**GHS Precautionary Statements:**

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash _ thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+352 - IF ON SKIN: Wash with soap and water.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P308+313 - IF exposed or concerned: Get medical advice/attention.
P321 - Specific treatment (see _ on this label).

P332+313 - If skin irritation occurs: Get medical advice/attention.
P337+313 - Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P403+233 - Store in a well ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container to _

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Ingredients

| CAS# | % | Chemical Name |
|---|---|---|
| 75-09-2 | 100% | Dichloromethane |

## 4 FIRST AID MEASURES

**Inhalation:** If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

**Skin Contact:** Wash with soap and water. Consult a physician.

**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5 FIRE FIGHTING MEASURES

Suitable extinguishing media:
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture:
Carbon oxides, Hydrogen chloride gas

Advice for firefighters:
Wear self-contained breathing apparatus for firefighting if necessary.

## 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:**
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
**Environmental precautions:**
Do not let product enter drains.
**Methods and materials for containment and cleaning up:**
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

## 7 HANDLING AND STORAGE

**Handling Precautions:** Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or mist.

**Storage Requirements:** Keep container tightly closed. Store in cool/dry area.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Personal Protective Equipment:**

Dichloromethane (75-09-2) [100%]

Personal protective equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Splash contact: Material: Fluorinated rubber Minimum layer thickness: 0.7 mm Break through time: 148 min Material tested:Vitoject (KCL 890 / Aldrich Z677698, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Dichloromethane (75-09-2) [100%]

Components with workplace control parameters
Potential Occupational Carcinogen
See Appendix A

TWA 50 ppm USA. ACGIH Threshold Limit Values (TLV)
Central Nervous System impairment
Carboxyhemoglobinemia
Substances for which there is a Biological Exposure Index or Indices (see BEI section)
Confirmed animal carcinogen with unknown relevance to humans
Substance listed; for more information see OSHA document 1910.1052
See 1910.1052
See Table Z-2

PEL 25 ppm OSHA Specifically Regulated Chemicals/Carcinogens
1910.1052
This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment.
Methylene chloride (MC) means an organic compound with chemical formula, CH2Cl2. Its Chemical Abstracts Service Registry Number is 75-09-2. Its molecular weight is 84.9 g/mole
OSHA specifically regulated carcinogen

| | | |
|---|---|---|
| STEL | 125 ppm | OSHA Specifically Regulated Chemicals/Carcinogens |

1910.1052
This section applies to all occupational exposures to methylene chloride (MC), Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment.
Methylene chloride (MC) means an organic compound with chemical formula, CH2Cl2. Its Chemical Abstracts Service Registry Number is 75-09-2. Its molecular weight is 84.9 g/mole
OSHA specifically regulated carcinogen

## 9 PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Appearance:** | Colorless. |
| **Physical State:** | Liquid |
| **Odor:** | Mildly sweet odor |
| **Specific Gravity or Density:** | 1.325 |
| **Boiling Point:** | 39.8 - 40 °C (103.6 - 104 °F) |
| **Freezing or Melting Point:** | Melting point/range: -97 °C (-143 °F) |
| **Vapor Pressure:** | 470.9 hPa (353.2 mmHg) at 20.0 °C (68.0 °F) |
| **Vapor Density:** | 2.93 - (Air = 1.0) |
| **Evaporation Rate:** | 0.71 |
| **Autoignition Temperature:** | 556.1 °C (1,033.0 °F) |
| **Upper Flammability Limit and Lower Flammability Limit:** | Upper explosion limit: 19 %(V) Lower explosion limit: 12 %(V) |

## 10 STABILITY AND REACTIVITY

| | |
|---|---|
| **Reactivity:** | No data available |
| **Chemical Stability:** | Stable under normal conditions. |
| **Conditions to Avoldentification:** | Heat, flames and sparks. Sun light. |
| **Materials to Avoldentification:** | Alkali metals, Aluminum, Strong oxidizing agents, Bases, Amines, Magnesium, Strong acids and strong bases, Vinyl compounds |
| **Hazardous Decomposition:** | No data available |

## 11 TOXICOLOGICAL INFORMATION

Dichloromethane (75-09-2) [100%]

Information on toxicological effects

Acute toxicity:
LD50 Oral - rat - > 2,000 mg/kg
LC50 Inhalation - rat - 52,000 mg/m3
LD50 Dermal - rat - > 2,000 mg/kg (OECD Test Guideline 402)
no data available

Skin corrosion/irritation: Skin - rabbit Result: Irritating to skin. - 24 h (Draize Test)

Serious eye damage/eye irritation: Eyes - rabbit Result: Irritating to eyes. - 24 h (Draize Test)

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: rat DNA damage

Carcinogenicity:
Carcinogenicity - rat - Inhalation:
Tumorigenic:Carcinogenic by RTECS criteria. Endocrine:Tumors.
Limited evidence of carcinogenicity in animal studies
Suspected human carcinogens
IARC: 2B - Group 2B: Possibly carcinogenic to humans (Methylene chloride)
NTP: Reasonably anticipated to be a human carcinogen (Methylene chloride)
OSHA: OSHA specifically regulated carcinogen (Methylene chloride)

Reproductive toxicity: no data available

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

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

Aspiration hazard: no data available

Additional Information:

RTECS: PA8050000

Dichloromethane is metabolized in the body producing carbon monoxide which increases and sustains carboxyhemoglobin levels in the blood, reducing the oxygen-carrying capacity of the blood., Acts as a simple asphyxiant by displacing air., anesthetic effects, Difficulty in breathing, Headache, Dizziness, Prolonged or repeated contact with skin may cause:, defatting, Dermatitis, Contact with eyes can cause:, Redness, Blurred vision, Provokes tears., Effects due to ingestion may include:, Gastrointestinal discomfort, Central nervous system depression, Paresthesia., Drowsiness, Convulsions, Conjunctivitis., Pulmonary edema. Effects may be delayed., Irregular breathing., Stomach/intestinal disorders, Nausea, Vomiting, Increased liver enzymes., Weakness, Heavy or prolonged skin exposure may result in the absorption of harmful amounts of material., Abdominal pain
Stomach - Irregularities - Based on Human Evidence

## 12 ECOLOGICAL INFORMATION

Dichloromethane (75-09-2) [100%]

Information on ecological effects

Toxicity:
Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 193.00 mg/l - 96 h.
NOEC - Cyprinodon variegatus (sheepshead minnow) - 130 mg/l - 96 h
Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 1,682.00 mg/l - 48 h.
other aquatic invertebrates

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects:

## 13 DISPOSAL CONSIDERATIONS

Dichloromethane (75-09-2) [100%]

Waste treatment methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

## 14 TRANSPORT INFORMATION

UN1593, Dichloromethane, 6.1, PGIII

## 15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

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RQ(1000LBS), Dichloromethane (75-09-2) [100%] CERCLA, HAP, MASS, NJHS, NRC, OSHAWAC, PA, PRIPOL, PROP65, SARA313, TOXICPOL, TOXICRCRA, TSCA, TXAIR, TXHWL

**WARNING**

This product can expose you to chemicals including Dichloromethane (Methylene chloride), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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Regulatory CODE Descriptions
-----------------------------------------------------------------
RQ = Reportable Quantity
CERCLA = Superfund clean up substance
HAP = Hazardous Air Pollutants
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right-to-Know Hazardous Substances
NRC = Nationally Recognized Carcinogens
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
PRIPOL = Clean Water Act Priority Pollutants
PROP65 = CA Prop 65
SARA313 = SARA 313 Title III Toxic Chemicals
TOXICPOL = Clean Water Act Toxic Pollutants
TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level
TXHWL = TX Hazardous Waste List
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## 16 OTHER INFORMATION

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