

# Safety Data Sheet

## Dichloromethane

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### 1. PRODUCT AND COMPANY IDENTIFICATION

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**Product Name:** Dichloromethane: ACS, HPLC, GC, Pesticide

**Synonyms/Generic Names:** Methylene chloride, Methylene dichloride

**Product Number:** CP-A8442, CP-C8442, CP-A8440, CP-C8440, CP-E8440

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** ChemPure Brand Chemicals  
39103 Warren Road  
Westland, MI 48185

**For More Information Call:** 734-884-4773 (Monday-Friday 8:00-4:30)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

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### 2. HAZARDS IDENTIFICATION

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**OSHA Hazards:** Carcinogen, Target organ effect, Irritant

**Target Organs:** Liver, Pancreas, Blood, Central nervous system, Heart, Kidney

**Signal Words:** Warning **Pictograms:**



**GHS Classification:**

|   |             |
|---|-------------|
| Acute toxicity, Oral  | Category 4  |
| Acute toxicity, Dermal  | Category 5  |
| Skin irritation   | Category 2  |
| Eye irritation  | Category 2A |
| Carcinogenicity   | Category 2  |
| Specific target organ toxicity-single exposure-Respiratory system, Central nervous system | Category 3  |
| Specific target organ toxicity-repeated exposure, Oral-Liver, Blood                       | Category 2  |
| Specific target organ toxicity-repeated exposure, Inhalation Central nervous system       | Category 2  |

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

|           |  |
|-----------|--|
| H303+H313 | May be harmful if swallowed or in contact with skin. |
|-----------|--|

|      |  |
|------|--|
| H315 | Causes skin irritation.  |
| H319 | Causes serious eye irritation.   |
| H335 | May cause respiratory irritation.  |
| H336 | May cause drowsiness or dizziness.   |
| H351 | Suspected of causing cancer.   |
| H373 | May cause damage to organs (Liver, Blood) through prolonged or repeated exposure if swallowed.         |
| H373 | May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled. |

**Precautionary Statements:**

|                |   |
|----------------|---|
| P261           | Avoid breathing dust/fume/gas/mist/vapors/spray.  |
| P281           | Use personal protective equipment as required.  |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. |

**Potential Health Effects**

|                   |  |
|-------------------|--|
| <b>Eyes</b>       | Causes eye irritation.   |
| <b>Inhalation</b> | May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness. |
| <b>Skin</b>       | Harmful if absorbed through skin. Causes skin irritation.  |
| <b>Ingestion</b>  | Harmful if swallowed.  |

**NFPA Ratings**

**HMIS Ratings**

|                        |               |
|------------------------|---------------|
| <b>Health</b>          | 2             |
| <b>Flammability</b>    | 1             |
| <b>Reactivity</b>      | 0             |
| <b>Specific hazard</b> | Not Available |

|                   |   |
|-------------------|---|
| <b>Health</b>     | 2 |
| <b>Fire</b>       | 1 |
| <b>Reactivity</b> | 0 |
| <b>Personal</b>   | H |

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Component          | Weight % | CAS #   | EINECS# / ELINCS# | Formula                         | Molecular Weight |
|--------------------|----------|---------|-------------------|---------------------------------|------------------|
| Methylene Chloride | >99      | 75-09-2 | 200-838-9         | CH <sub>2</sub> Cl <sub>2</sub> | 84.93 g/mol      |

**4. FIRST-AID MEASURES**

|                   |  |
|-------------------|--|
| <b>Eyes</b>       | Rinse with plenty of water for at least 15 minutes and seek medical attention.   |
| <b>Inhalation</b> | Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention. |
| <b>Skin</b>       | Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.                        |
| <b>Ingestion</b>  | <b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.      |

**5. FIRE-FIGHTING MEASURES**

|  |  |
|--|--|
| <b>Suitable (and unsuitable) extinguishing media</b> | Product may be flammable at high temperatures. Use water spray, alcohol-resistant foam, dry chemicals or carbon dioxide to extinguish fire. Use appropriate media for adjacent fire. Cool containers with water. |
|--|--|

|  |  |
|--|--|
| <b>Special protective equipment and precautions for firefighters</b> | Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.          |
| <b>Specific hazards arising from the chemical</b>                    | Emits toxic fumes (carbon oxides, hydrogen chloride gas) under fire conditions. (See also Stability and Reactivity section). |

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## 6. ACCIDENTAL RELEASE MEASURES

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|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | See section 8 for recommendations on the use of personal protective equipment.  |
| <b>Environmental precautions</b>   | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.   |
| <b>Methods and materials for containment and cleaning up</b>               | Neutralize spill. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations. |

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

### Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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### Occupational exposure controls:

| Component          | Exposure Limits                 | Basis | Entity |
|--------------------|---------------------------------|-------|--------|
| Methylene Chloride | 50 ppm<br>174 mg/m <sup>3</sup> | TLV   | ACGIH  |
|                    | 25 ppm                          | PEL   | OSHA   |
|                    | 125                             | STEL  | OSHA   |

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

### Personal Protection

|             |   |
|-------------|---|
| <b>Eyes</b> | Wear chemical safety glasses or goggles, and face shield if splashing is likely to occur. |
|-------------|---|

|                   |  |
|-------------------|--|
| <b>Inhalation</b> | Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.  |
| <b>Skin</b>       | Wear gloves made of polyethylene (PE) vinyl alcohol (PVA) and ethylene vinyl alcohol (EVOH). Change these gloves frequently if contamination is suspected. Inner glove should be of PVA/EVA or PE/EVOH and outer glove nitrile or neoprene to prevent tears or cuts. |
| <b>Other</b>      | Not Available  |

#### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|   |   |
|---|---|
| Appearance (physical state, color, etc.)    | Colorless liquid.   |
| Odor  | Not Available   |
| Odor threshold                              | Not Available   |
| pH  | Not Available   |
| Melting point/freezing point                | -97°C (-143°F)  |
| Initial boiling point and boiling range     | 39°C (103°F)  |
| Flash point                                 | Not Available   |
| Evaporation rate                            | 0.71  |
| Flammability (solid, gas)                   | Flammable   |
| Upper/lower flammability or explosive limit | Upper: 19% (V) Lower:12% (V)  |
| Vapor pressure                              | 470.9 hPa (353.2 mmHg) at 20°C (68°F)   |
| Vapor density                               | 2.93 (air=1)  |
| Density                                     | 1.325 (water=1)   |
| Solubility (ies)                            | Soluble in methanol, diethyl ether, n-octanol, acetone. Partially soluble in water. |
| Partition coefficient: n-octanol/water      | log Pow: 1.25   |
| Auto-ignition temperature                   | 556°C (1,032°F)   |
| Decomposition temperature                   | Not Available   |

## 10. STABILITY AND REACTIVITY

|   |  |
|---|--|
| <b>Chemical Stability</b>                 | Stable   |
| <b>Possibility of Hazardous Reactions</b> | Will not occur.  |
| <b>Conditions to Avoid</b>                | Heat, flames, sparks, exposure to sunlight.  |
| <b>Incompatible Materials</b>             | Alkali metals, aluminum, strong oxidizing agents, bases, amines, magnesium, strong acids, strong bases, vinyl compounds. |
| <b>Hazardous Decomposition Products</b>   | Carbon oxides, hydrogen chloride gas.  |

## 11. TOXICOLOGICAL INFORMATION

#### Acute Toxicity

|                    |                                       |
|--------------------|---------------------------------------|
| <b>Skin</b>        | Rabbit – 24h – Skin irritation        |
| <b>Eyes</b>        | Rabbit – 24h – Mild eye irritation    |
| <b>Respiratory</b> | LC50 – Rat – 52,000 mg/m <sup>3</sup> |
| <b>Ingestion</b>   | LD50 – Rat – 1,600 mg/kg              |

### Carcinogenicity

|              |   |
|--------------|---|
| <b>IARC</b>  | 2B-Group 2B: Possibly carcinogenic to humans (Methylene chloride).    |
| <b>ACGIH</b> | A3: Animal carcinogen (Methylene chloride)                            |
| <b>NTP</b>   | Reasonably anticipated to be a human carcinogen (Methylene chloride). |
| <b>OSHA</b>  | 1910.1052   |

### Signs & Symptoms of Exposure

|                    |  |
|--------------------|--|
| <b>Skin</b>        | Defatting, dermatitis.   |
| <b>Eyes</b>        | Redness, blurred vision, tears.                                      |
| <b>Respiratory</b> | Difficulty breathing, dizziness, drowsiness, anesthetic effects.     |
| <b>Ingestion</b>   | Nausea, vomiting, increased liver enzymes, weakness, abdominal pain. |

|   |  |
|---|--|
| <b>Chronic Toxicity</b>                                 | Carcinogenic.  |
| <b>Teratogenicity</b>                                   | Passes through the placenta, excreted in maternal milk.  |
| <b>Mutagenicity</b>                                     | Genotoxicity in vivo - rat - Oral DNA damage   |
| <b>Embryotoxicity</b>                                   | Not Available  |
| <b>Specific Target Organ Toxicity-single exposure</b>   | May cause respiratory irritation. May cause drowsiness or dizziness.   |
| <b>Specific Target Organ Toxicity-repeated exposure</b> | Inhalation - May cause damage to organs through prolonged or repeated exposure. - Central nervous system<br>Oral - May cause damage to organs through prolonged or repeated exposure. - Liver, Blood |
| <b>Reproductive Toxicity</b>                            | Not Available  |
| <b>Respiratory/Skin Sensitization</b>                   | Not Available  |

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

|                                      |  |
|--------------------------------------|--|
| <b>Aquatic Vertebrate</b>            | LC50 – Pimephales promelas – 193 mg/L – 96h<br>NOEC – Cyprinodon variegates – 130 mg/L – 96h |
| <b>Aquatic Invertebrate</b>          | EC50 – Daphnia magna – 1,682 mg/L – 48h  |
| <b>Terrestrial</b>                   | Not Available  |
| <b>Persistence and Degradability</b> | Not Available  |
| <b>Bioaccumulative Potential</b>     | Not Available  |
| <b>Mobility in Soil</b>              | Not Available  |
| <b>PBT and vPvB Assessment</b>       | Not Available  |
| <b>Other Adverse Effects</b>         | Not Available  |

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## 13. DISPOSAL CONSIDERATIONS

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|                           |  |
|---------------------------|--|
| <b>Waste Residues</b>     | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container. |
| <b>Product Containers</b> | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container. |

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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## 14. TRANSPORTATION INFORMATION

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|                  |                                      |
|------------------|--------------------------------------|
| US DOT           | UN1593, Dichloromethane, 6.1, pg III |
| TDG              | UN1593, DICHLOROMETHANE, 6.1, pg III |
| IMDG             | UN1593, DICHLOROMETHANE, 6.1, pg III |
| Marine Pollutant | No                                   |
| IATA/ICAO        | UN1593, Dichloromethane, 6.1, pg III |

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## 15. REGULATORY INFORMATION

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|                           |  |
|---------------------------|--|
| TSCA Inventory Status     | All ingredients are listed on the TSCA inventory.  |
| DSCL (EEC)                | All ingredients are listed on the DSCL inventory.  |
| California Proposition 65 | Listed: Methylene Chloride   |
| SARA 302                  | Not Listed   |
| SARA 304                  | Not Listed   |
| SARA 311                  | Methylene Chloride   |
| SARA 312                  | Methylene Chloride   |
| SARA 313                  | Not Listed   |
| WHMIS Canada              | Class D-1B: Toxic material causing immediate and serious toxic effects.<br>Class D-2A: Very toxic material causing other toxic effects.<br>Class D-2B: Toxic material causing other toxic effects. |

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## 16. OTHER INFORMATION

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| Revision   | Date       |
|------------|------------|
| Revision 1 | 07-16-2012 |
| Revision 2 | 08/21/2013 |
| Revision 3 | 11/04/2021 |
| Revision 4 | 06/01/2023 |

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