Section 1. Chemical Product and Company Identification

Common Name/Trade Name: 2-Chloroethanol

Catalog Number(s): C2040

CAS#: 107-07-3

RTECS#: KK087500

TSCA: TSCA 8(b) inventory: 2-Chloroethanol

CI#: Not available.

Manufacturer: SPECTRUM LABORATORY PRODUCTS INC.

14422 S. SAN PEDRO STREET

GARDENA, CA 90248

Commercial Name(s): Not available.

Synonym: Ethylene Chlorohyrin

Chemical Name: 2-Chloroethanol

Chemical Family: Not available.

Chemical Formula: C2-H5-Cl-O

Supplier: SPECTRUM LABORATORY PRODUCTS INC.

14422 S. SAN PEDRO STREET

GARDENA, CA 90248

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m²)</th>
<th>STEL (mg/m²)</th>
<th>CEIL (mg/m²)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Chloroethanol</td>
<td>107-07-3</td>
<td>16</td>
<td>3</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients

2-Chloroethanol:

ORAL (LD50): Acute: 71 mg/kg [Rat]. 81 mg/kg [Mouse]. 110 mg/kg [Guinea pig].

DERMAL (LD50): Acute: 67 mg/kg [Rabbit]. 18 mg/kg [Mouse]. 293 mg/kg [Rat].

Section 3. Hazards Identification

Potential Acute Health Effects: Very hazardous in case of skin contact (irritant). Hazardous in case of skin contact (permeator), of eye contact (irritant), of ingestion, of inhalation. Severe over-exposure can result in death.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Classified 4 (No evidence.) by NTP. A4 (Not classifiable for human or animal.) by ACGIH.

MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Classified Development toxin [POSSIBLE]. The substance may be toxic to kidneys, lungs, the nervous system, liver, upper respiratory tract. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Continued on Next Page
### Section 4. First Aid Measures

| Eye Contact | Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention. |
| Skin Contact | In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Get medical attention immediately. |
| Serious Skin Contact | Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention. |
| Inhalation | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately. |
| Serious Inhalation | Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention. |
| Ingestion | If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately. |
| Serious Ingestion | Not available. |

### Section 5. Fire and Explosion Data

| Flammability of the Product | Flammable. |
| Auto-Ignition Temperature | 425°C (797°F) |
| Flash Points | CLOSED CUP: 57.26°C (135.1°F). OPEN CUP: 40°C (104°F). |
| Flammable Limits | LOWER: 4.9%  UPPER: 15.9% |
| Products of Combustion | These products are carbon oxides (CO, CO2), halogenated compounds. Toxic fumes of phosgene |
| Fire Hazards in Presence of Various Substances | Flammable in presence of open flames and sparks, of heat. Slightly flammable to flammable in presence of oxidizing materials. |
| Fire Fighting Media and Instructions | Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion. |
| Special Remarks on Fire Hazards | Vapors are heavier than air and may flash back to a source of ignition. Strong oxidizers may cause fires. |
| Special Remarks on Explosion Hazards | Strong oxidizers may cause explosions. |

### Section 6. Accidental Release Measures

| Small Spill | Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. |
| Large Spill | Flammable liquid. Poisonous liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities. |
Section 7. Handling and Storage

Precautions
Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, alkalis.

Storage
Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Do not store above 23°C (73.4°F).

Section 8. Exposure Controls/Personal Protection

Engineering Controls
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection
Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits
TWA: 5 CEIL: 1 (ppm) from OSHA (PEL) [United States]
TWA: 16 CEIL: 3 (mg/m³) from OSHA (PEL) [United States]
CEIL: 1 from NIOSH SKIN
CEIL: 3 (mg/m³) from NIOSH SKIN
STEL: 1 (ppm) [United Kingdom (UK)]

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance
Liquid. (Glycerine-like)

Odor
Ethereal. (Slight.)

Taste
Sweet. Pleasant

Color
Clear Colorless.

Molecular Weight
80.51g/mole

pH (1% soln/water)
Not available.

Boiling Point
129°C (264.2°F)

Melting Point
-67.5°C (-89.5°F)

Critical Temperature
Not available.

Specific Gravity
1.2 (Water = 1)

Vapor Pressure
0.7 kPa (@ 20°C)

Vapor Density
2.78 (Air = 1)

Volatility
Not available.

Odor Threshold
Not available.

Water/Oil Dist. Coeff.
The product is equally soluble in oil and water; log(oil/water) = -0.1

Ionicity (in Water)
Not available.

Dispersion Properties
Dispersed in methanol, n-octanol. Very slightly dispersed in diethyl ether. See solubility in water, methanol, n-octanol, acetone.

Solubility
Easily soluble in cold water, hot water. Soluble in methanol, n-octanol, acetone. Very slightly soluble in diethyl ether.

Continued on Next Page
Section 10. Stability and Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>The product is stable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instability Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions of Instability</td>
<td>Heat, ignition sources, incompatible materials, water, steam. When heated to decomposition, it emits highly toxic fumes of phosgene</td>
</tr>
<tr>
<td>Incompatibility with various substances</td>
<td>Reactive with oxidizing agents, alkalis. Slightly reactive to reactive with moisture.</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Special Remarks on Reactivity: Will react with water or steam to produce toxic and corrosive fumes.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11. Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact.

Toxicity to Animals: Acute oral toxicity (LD50): 71 mg/kg [Rat]. Acute dermal toxicity (LD50): 18 mg/kg [Mouse].

Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified 4 (No evidence.) by NTP. A4 (Not classifiable for human or animal.) by ACGIH. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. DEVELOPMENTAL TOXICITY: Classified Development toxin [POSSIBLE]. May cause damage to the following organs: kidneys, lungs, the nervous system, liver, upper respiratory tract.

Other Toxic Effects on Humans: Very hazardous in case of skin contact (irritant). Hazardous in case of skin contact (permeator), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: May cause adverse reproductive effects (fetotoxicity, developmental abnormalities) and may affect genetic material (mutagenicity) based on animal data.

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin: Causes skin irritation. May be absorbed through skin. May affect behavior and respiratory system (dyspnea) if absorbed through skin. Eyes: Causes eye irritation. Inhalation: Harmful of inhaled. Causes respiratory tract and mucous membrane irritation. May affect behavior, (general depressed activity, dizziness, visual disturbances), respiration (dyspnea, cyanosis), blood, liver, cardiovascular system, and urinary system. Ingestion: Harmful if swallowed. Causes gastrointestinal tract irritation (nausea, vomiting, diarrhea). May affect behavior (general depressed activity), respiration (dyspnea), liver, metabolism, urinary system, and endocrine system.

Section 12. Ecological Information

Ecotoxicity: Ecotoxicity in water (LC50): 83.7 mg/l 96 hours [Fathead Minnow].

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are as toxic as the product itself.

Continued on Next Page
2-Chloroethanol

Special Remarks on the Products of Biodegradation
Not available.

Section 13. Disposal Considerations

Waste Disposal
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information

DOT Classification
CLASS 6.1: Poisonous material.

Identification
Ethylene Chlorohydrin, Poison Inhalation Hazard Zone B UNNA: 1135 PG: I

Special Provisions for Transport
Not available.

DOT (Pictograms)

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations
New York release reporting list: 2-Chloroethanol
Rhode Island RTK hazardous substances: 2-Chloroethanol
Pennsylvania RTK: 2-Chloroethanol
Florida: 2-Chloroethanol
Minnesota: 2-Chloroethanol
Massachusetts RTK: 2-Chloroethanol
New Jersey: 2-Chloroethanol
California Director's List of Hazardous Substances: 2-Chloroethanol
TSCA 8(b) inventory: 2-Chloroethanol
SARA 302/304/311/312 extremely hazardous substances: 2-Chloroethanol
CERCLA: Hazardous substances.: 2-Chloroethanol: 1 lbs. (0.4536 kg)

California Proposition 65 Warnings
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Regulations

Other Classifications
WHMIS (Canada) CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).
CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC) R26/27/28- Very toxic by inhalation, in contact with skin and if swallowed.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S7/9- Keep container tightly closed and in a well-ventilated place.
S28- After contact with skin, wash immediately with plenty of water.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

HMIS (U.S.A.)

Health Hazard 3
Fire Hazard 2
Reactivity 0
Personal Protection

National Fire Protection Association (U.S.A.)

Flammability
Health
Reactivity
Specific hazard
### Protective Equipment

- **Gloves.**
- **Lab coat.**
- **Vapor respirator.** Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
- **Splash goggles.**

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### Section 16. Other Information

**MSDS Code**

4937C

**References**

Not available.

**Other Special Considerations**

Not available.


Verified by Sonia Owen.


CALL (310) 516-8000

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Notice to Reader

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Continued on Next Page
All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.