# Material Safety Data Sheet

## Section 1. Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
<th>Personal Protective Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
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</tr>
</tbody>
</table>

### Catalog Number(s).
- M1320

### CAS#
- 79-11-8

### RTECS
- AF8575000

### TSCA
- TSCA 8(b) inventory:
  - Chloroacetic Acid

### CI#
- Not available.

### Manufacturer
- SPECTRUM LABORATORY PRODUCTS INC.
  - 14422 S. SAN PEDRO STREET
  - GARDENA, CA 90248

### Commercial Name(s)
- Not available.

### Synonym
- Monochloroacetic acid; Chloroethanoic Acid; alpha-Chloroacetic Acid; Chloracetic acid; Monochloracetic Acid; Monochloroethanoic Acid

### Chemical Name
- Chloroacetic Acid

### Chemical Family
- Not available.

### Chemical Formula
- CH2-CHOH or C2-H3-Cl-O2

### Supplier
- SPECTRUM LABORATORY PRODUCTS INC.
  - 14422 S. SAN PEDRO STREET
  - GARDENA, CA 90248

## Section 2. Composition and Information on Ingredients

### Exposure Limits

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Chloroacetic Acid</td>
<td>79-11-8</td>
<td>0.3</td>
<td>1</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

### Toxicological Data on Ingredients
- Chloroacetic Acid:
  - ORAL (LD50): Acute 55 mg/kg [Rat].

## Section 3. Hazards Identification

### Potential Acute Health Effects
- Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive), of inhalation. The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

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**Continued on Next Page**
### Chloroacetic Acid

#### Potential Chronic Health Effects

**CARCINOGENIC EFFECTS:** Not available.

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

**DEVELOPMENTAL TOXICITY:** Not available.

The substance may be toxic to kidneys, liver, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

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**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 immediately. |
| 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. Thoroughly clean shoes 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. |

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**Section 5. Fire and Explosion Data**

| Flammability of the Product | May be combustible at high temperature. |
| Auto-Ignition Temperature | >500°C (932°F) |
| Flash Points | CLOSED CUP: 126°C (258.8°F). |
| Flammable Limits | Not available. |
| Products of Combustion | Not available. |
| Fire Hazards in Presence of Various Substances | Slightly flammable to flammable in presence of heat. |
| Fire Fighting Media and Instructions | SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet. |
| Special Remarks on Fire Hazards | As with most organic solids, fire is possible at elevated temperatures. When heated to decomposition it emits toxic fumes of hydrogen chloride. |
| Special Remarks on Explosion Hazards | Not available. |

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### Section 6. Accidental Release Measures

**Small Spill**  
Use appropriate tools to put the spilled solid in a convenient waste disposal container.

**Large Spill**  
Corrosive solid. Poisonous solid.  
Stop leak if without risk. 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. Eliminate all ignition sources. 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 away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. Never add water to this product. 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, metals, alkalis.

**Storage**  
Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic

### Section 8. Exposure Controls/Personal Protection

**Engineering Controls**  
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection**  
Splash goggles. Synthetic apron. Vapor and dust respirator. If the exposure limit is exceeded, and engineering controls are not feasible, a respirator with an organic vapor cartridge and particulate filter (NIOSH type N100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill**  
Splash goggles. Full suit. Vapor and dust 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: 0.3 (ppm) [United Kingdom (UK)] SKIN  
TWA: 1 (mg/m³) [United Kingdom (UK)] SKIN  
TWA: 0.3 STEL: 1 from AIHA [United States]  
TWA: 1 STEL: 4 (mg/m³) from AIHA [United States]  
Consult local authorities for acceptable exposure limits.

### Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical state and appearance</th>
<th>Solid. (Crystals solid.)</th>
<th>Odor</th>
<th>Characteristic penetrating similar to vinegar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>Not available.</td>
<td>Taste</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH (1% soln/water)</td>
<td>Not available.</td>
<td>Color</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>189°C (372.2°F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting Point</td>
<td>61°C (141.8°F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Temperature</td>
<td>412.85°C (775.1°F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.58 (Water = 1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not applicable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>3.26 (Air = 1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volatility</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water/Oil Dist. Coeff.</td>
<td>The product is more soluble in oil; log(oil/water) = 0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ionicity (in Water)</td>
<td>Not available.</td>
<td></td>
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</tbody>
</table>

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## Chloroacetic Acid

### Dispersion Properties

See solubility in water, diethyl ether, acetone.

### Solubility

- Easily soluble in cold water.
- Soluble in diethyl ether, acetone.

## Section 10. Stability and Reactivity Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Stability</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Instability Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions of Instability</td>
<td>Excess heat, incompatible materials</td>
</tr>
<tr>
<td>Incompatibility with various</td>
<td>Reactive with oxidizing agents, metals, alkalis.</td>
</tr>
<tr>
<td>substances</td>
<td></td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Special Remarks on Reactivity**

Reacts with ammonia to form glycine and with aniline to form precursor for indigo dyes.

**Special Remarks on Corrosivity**

Corrosive to metals

Polymerization

Will not occur.

## Section 11. Toxicological Information

### Routes of Entry

- Inhalation. Ingestion.

### Toxicity to Animals

- Acute oral toxicity (LD50): 55 mg/kg [Rat].

### Chronic Effects on Humans

**MUTAGENIC EFFECTS:** Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys, liver, central nervous system (CNS).

### Other Toxic Effects on Humans

- Very hazardous in case of skin contact (irritant), of ingestion.
- Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive), of inhalation (lung corrosive).

**Special Remarks on Toxicity to Animals**

Not available.

**Special Remarks on Chronic Effects on Humans**

- May affect genetic material (mutagenic).
- May cause cancer based on animal test data. No human data found at this time.

**Special Remarks on other Toxic Effects on Humans**

Acute Potential Health Effects:

- Skin: Corrosive. Causes severe irritation with redness, pain, burns. It can be absorbed through intact skin and cause systemic effects. Systemic effects may include disorientation, agitation, convulsions, cardiac failure, metabolic acidosis, renal insufficiency, cerebral edema.
- Eyes: Corrosive. Causes severe irritation, blurred vision, redness, pain, conjunctivitis, burns (burns of the cornea), and possible eye damage.
- Inhalation: Harmful if inhaled. Causes respiratory tract irritation and possible burns of the upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting. Pulmonary edema can ensue from significant inhalation exposure.
- Ingestion: Harmful if swallowed. Causes gastrointestinal tract irritation with sore throat, vomiting, diarrhea. Can cause burns of the mouth, throat and gastrointestinal tract. May cause perforation of the gastrointestinal tract and peritonitis. Can affect behavior (central nervous system [CNS] depression, restlessness, anxiety, blurred vision, hallucinations, muscle twitching, "pins and needles," seizures, convulsions), liver and kidneys (anuria), respiration (respiratory depression), cardiovascular system (hypotension, dysrhythmias, tachycardia), respiration (respiration depression), liver (liver damage), and kidneys (renal tubular necrosis, kidney failure)

**Chronic Potential Health Effects:**

- Skin: Risk of possible dermatitis.
- Inhalation: Risk of possible nasal perforation, erosion of tooth enamel, chronic bronchitis.
- Ingestion: Risk of possible erosion of tooth enamel.
Section 12. Ecological Information

Ecotoxicity
Not available.

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 less toxic than the product itself.

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.
Class 8: Corrosive material

Identification
Chloroacetic Acid, Solid UNNA: 1751 PG: II

Special Provisions for Transport
Not available.

DOT (Pictograms)

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations
Connecticut hazardous material survey.: Chloroacetic Acid
Illinois chemical safety act: Chloroacetic Acid
New York release reporting list: Chloroacetic Acid
Pennsylvania RTK: Chloroacetic Acid
Minnesota: Chloroacetic Acid
Massachusetts RTK: Chloroacetic Acid
Massachusetts spill list: Chloroacetic Acid
New Jersey: Chloroacetic Acid
New Jersey spill list: Chloroacetic Acid
Louisiana RTK reporting list: Chloroacetic Acid
Louisiana spill reporting: Chloroacetic Acid
TSCA 8(b) inventory: Chloroacetic Acid
SARA 302/304/311/312 extremely hazardous substances: Chloroacetic Acid
SARA 313 toxic chemical notification and release reporting: Chloroacetic Acid
CERCLA: Hazardous substances.: Chloroacetic Acid: 100 lbs. (45.36 kg)

California Proposition 65

Warnings
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Continued on Next Page
The classification of this product has not been validated yet by the Service du repertoire toxicologique. However, it might be classified as CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).

CLASS E: Corrosive solid.

R25- Toxic if swallowed.
R34- Causes burns.
R50- Very toxic to aquatic organisms.

S23- Do not breathe gas/fumes/vapour/spray
S37- Wear suitable gloves.
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.

Notes on protective equipment:
- Gloves.
- Synthetic apron.
- Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
- Splash goggles.
### Section 16. Other Information

<table>
<thead>
<tr>
<th>MSDS Code</th>
<th>M4150</th>
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</thead>
<tbody>
<tr>
<td>References</td>
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</tr>
<tr>
<td>Other Special Considerations</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Verified by Sonia Owen.  
Printed 9/12/2006.

**CALL (310) 516-8000**

**Notice to Reader**

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.