Safety Data Sheet

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Ferric Chloride, 40% (w/v)

Product Number: 3127
Other Identifying Product Numbers: 3127-1, 3127-16, 3127-32, R3127000-20F

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company: Ricca Chemical Company
Address: 448 West Fork Drive
Arlington, TX  76012   USA
Telephone: 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA)  800-424-9300
CHEMTREC (International)  1+ 703-527-3887
2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Category</th>
<th>Hazard Statements</th>
<th>Precautionary Statements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity - Oral</td>
<td>Category 4</td>
<td>H302</td>
<td>P264, P270, P301+P312, P330, P501</td>
</tr>
<tr>
<td>Acute Toxicity - Inhalation</td>
<td>Category 3</td>
<td>H331</td>
<td>P261, P271, P304+P340, P311, P321, P403+P233, P405, P501</td>
</tr>
<tr>
<td>Eye Damage / Irritation</td>
<td>Category 1</td>
<td>H318</td>
<td>P280, P305+P351+P338, P310</td>
</tr>
<tr>
<td>Respiratory Sensitizer</td>
<td>Category 1</td>
<td>H334</td>
<td>P261, P285, P304+P341, P342+P311, P501</td>
</tr>
<tr>
<td>Germ Cell Mutagenicity</td>
<td>Category 2</td>
<td>H341</td>
<td>P201, P202, P280, P308+P313, P405, P501</td>
</tr>
<tr>
<td>Specific Target Organs/Systemic Toxicity Following Single Exposure</td>
<td>Category 2</td>
<td>H371</td>
<td>P260, P264, P270, P308+P311, P405, P501</td>
</tr>
<tr>
<td>Aspiration Hazard</td>
<td>Category 1</td>
<td>H304</td>
<td>P301+P310, P331, P405, P501</td>
</tr>
<tr>
<td>Corrosive to Metals</td>
<td>Category 1</td>
<td>H290</td>
<td>P234, P390, P406</td>
</tr>
<tr>
<td>Hazardous to the Aquatic Environment (Acute)</td>
<td>Category 3</td>
<td>H402</td>
<td>P273, P501</td>
</tr>
<tr>
<td>Hazardous to the Aquatic Environment (Chronic)</td>
<td>Category 2</td>
<td>H411</td>
<td>P273, P391, P501</td>
</tr>
</tbody>
</table>

2.2. GHS Label Elements

Pictograms:

Signal Word: Danger
Hazard Statements:

<table>
<thead>
<tr>
<th>Hazard Number</th>
<th>Hazard Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>H290</td>
<td>May be corrosive to metals.</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled.</td>
</tr>
<tr>
<td>H334</td>
<td>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
<tr>
<td>H341</td>
<td>Suspected of causing genetic defects.</td>
</tr>
<tr>
<td>H371</td>
<td>May cause damage to organs.</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>
Precautionary Statements:

<table>
<thead>
<tr>
<th>Precautionary Number</th>
<th>Precautionary Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>P201</td>
<td>Obtain special instructions before use.</td>
</tr>
<tr>
<td>P202</td>
<td>Do not handle until all safety precautions have been read and understood.</td>
</tr>
<tr>
<td>P234</td>
<td>Keep only in original container.</td>
</tr>
<tr>
<td>P260</td>
<td>Do not breathe fumes, mist, vapors, or spray.</td>
</tr>
<tr>
<td>P261</td>
<td>Avoid breathing fumes, mist, vapors, or spray.</td>
</tr>
<tr>
<td>P264</td>
<td>Wash arms, hands and face thoroughly after handling.</td>
</tr>
<tr>
<td>P270</td>
<td>Do not eat, drink or smoke when using this product.</td>
</tr>
<tr>
<td>P271</td>
<td>Use only outdoors or in a well-ventilated area.</td>
</tr>
<tr>
<td>P273</td>
<td>Avoid release to the environment.</td>
</tr>
<tr>
<td>P280</td>
<td>Wear protective gloves and eye protection.</td>
</tr>
<tr>
<td>P285</td>
<td>In case of inadequate ventilation wear respiratory protection.</td>
</tr>
<tr>
<td>P301+P310</td>
<td>IF SWALLOWED: Immediately call a POISON CENTER or physician.</td>
</tr>
<tr>
<td>P301+P312</td>
<td>IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.</td>
</tr>
<tr>
<td>P301+P330+P331</td>
<td>IF SWALLOWED: rinse mouth. Do NOT induce vomiting.</td>
</tr>
<tr>
<td>P303+P361+P353</td>
<td>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.</td>
</tr>
<tr>
<td>P304+P340</td>
<td>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</td>
</tr>
<tr>
<td>P304+P341</td>
<td>IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.</td>
</tr>
<tr>
<td>P305+P351+P338</td>
<td>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
</tr>
<tr>
<td>P308+P311</td>
<td>IF exposed or concerned: Call a POISON CENTER or physician.</td>
</tr>
<tr>
<td>P308+P313</td>
<td>IF exposed or concerned: Get medical attention.</td>
</tr>
<tr>
<td>P310</td>
<td>Immediately call a POISON CENTER or physician.</td>
</tr>
<tr>
<td>P311</td>
<td>Call a POISON CENTER or physician.</td>
</tr>
<tr>
<td>P321</td>
<td>Specific treatment (Wash areas of contact with water).</td>
</tr>
<tr>
<td>P330</td>
<td>Rinse mouth.</td>
</tr>
<tr>
<td>P331</td>
<td>Do NOT induce vomiting.</td>
</tr>
<tr>
<td>P342+P311</td>
<td>If experiencing respiratory symptoms: Call a POISON CENTER or physician.</td>
</tr>
<tr>
<td>P363</td>
<td>Wash contaminated clothing before reuse.</td>
</tr>
<tr>
<td>P390</td>
<td>Absorb spillage to prevent material damage.</td>
</tr>
<tr>
<td>P391</td>
<td>Collect spillage.</td>
</tr>
<tr>
<td>P403+P233</td>
<td>Store in a well-ventilated place. Keep container tightly closed.</td>
</tr>
<tr>
<td>P405</td>
<td>Store locked up.</td>
</tr>
<tr>
<td>P406</td>
<td>Store in corrosive resistant container with a resistant inner liner.</td>
</tr>
<tr>
<td>P501</td>
<td>Dispose of contents in accordance with local, state, federal and international regulations.</td>
</tr>
</tbody>
</table>
Safety Data Sheet

2.4. Hazards not Otherwise Classified or Covered by GHS
Data not available.

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Formula</th>
<th>Molecular Weight</th>
<th>CAS Number</th>
<th>Weight%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>H₂O</td>
<td>18.01 g/mol</td>
<td>7732-18-5</td>
<td>65.92</td>
</tr>
<tr>
<td>Ferric Chloride Hexahydrate</td>
<td>FeCl₃·6H₂O</td>
<td>270.30 g/mol</td>
<td>10025-77-1</td>
<td>33.72</td>
</tr>
<tr>
<td>Hydrochloric Acid</td>
<td>HCl</td>
<td>36.46 g/mol</td>
<td>7647-01-0</td>
<td>0.37</td>
</tr>
</tbody>
</table>

SECTION 4: First-Aid Measures

4.1. General First Aid Information

**Eye Contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Causes severe irritation, may cause brownish discoloration of conjunctival tissue.

**Inhalation:** IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

**Skin Contact:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. May cause irritation, redness, and pain.

**Ingestion:** IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Dilute with water or milk. Vomiting may occur spontaneously but do not induce. Call a physician immediately.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Harmful if swallowed. May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. Causes serious eye damage. Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. May cause damage to organs. Corrosive. Irritating to the eyes and skin. Wash areas of contact with water. Ingestion will cause moderate to severe irritation of the mouth and stomach. If ingested, dilute with water. Do not induce vomiting. Call a physician. EYE CONTACT: Causes severe irritation, may cause brownish discoloration of conjunctival tissue. SKIN CONTACT: May cause irritation, redness, and pain. CHRONIC EFFECTS / CARCINOGENICITY: Repeated ingestion of large doses may cause liver damage.

4.3. Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops. Dilute with water or milk. Vomiting may occur spontaneously but do not induce. Call a physician immediately.
SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media
Use any means suitable for extinguishing surrounding fire. Ferric Chloride is non-combustible.

5.2. Specific Hazards Arising from the Substance or Mixture
Not considered to be a fire or explosion hazard. Irritating Hydrogen Chloride fumes are formed in fires. Avoid contact with vapors.

5.3. Special Protective Equipment for Firefighters
Use protective clothing and breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

6.2. Cleanup and Containment Methods and Materials
Absorb with suitable material and dispose of in accordance with local regulations. Check local regulations for the proper disposal of iron containing products.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions
Store in corrosive resistant container with a resistant inner liner. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Limit Type</th>
<th>Country</th>
<th>Exposure Limit</th>
<th>Information Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferric Chloride Hexahydrate (10025-77-TLV-TWA)</td>
<td>USA</td>
<td>1 mg/m³ TWA (as Fe)</td>
<td>ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)</td>
<td></td>
</tr>
<tr>
<td>Hydrochloric Acid (7647-01-0)</td>
<td>TLV-Ceiling</td>
<td>USA</td>
<td>2 ppm Ceiling</td>
<td>ACGIH - Threshold Limit Values - Ceilings (TLV-C)</td>
</tr>
<tr>
<td>Hydrochloric Acid (7647-01-0)</td>
<td>PEL-Ceiling</td>
<td>USA</td>
<td>5 ppm Ceiling; 7 mg/m³ Ceiling</td>
<td>U.S. - OSHA - Final PELs - Ceiling Limits</td>
</tr>
</tbody>
</table>
8.2. Exposure Controls

**Engineering Controls:** Use only outdoors or in a well-ventilated area. No specific controls are needed. Normal room ventilation is adequate.

**Respiratory Protection:** In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate.

**Skin Protection:** Wear protective gloves and eye protection. Chemical resistant gloves.

**Eye Protection:** Wear protective gloves and eye protection. Safety glasses or goggles.

8.3. Personal Protective Equipment

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

- **Appearance:** Amber liquid
- **Physical State:** Liquid
- **Odor:** Data not available.
- **Odor Threshold:** Data not available.
- **pH:** Acidic
- **Melting/Freezing Point:** Data not available.
- **Initial Boiling Point/Range:** Approximately 105°C - Approximately 105°C
- **Flash Point:** Data not available.
- **Evaporation Rate:** Data not available.
- **Flammability:** Data not available.
- **Flammability/Explosive Limits:** Data not available.
- **Vapor Pressure:** Data not available.
- **Vapor Density:** Data not available.
- **Relative Density:** 1.19
- **Solubility:** Miscible
- **Partition Coefficient:** Data not available.
- **Auto-Ignition Temperature:** Data not available.
- **Decomposition Temperature:** Data not available.
- **Viscosity:** Data not available.
- **Explosive Properties:** Data not available.
- **Oxidizing Properties:** Data not available.
SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability
Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions
Data not available.

10.3. Conditions to Avoid and Incompatible Materials
Keep only in original container. Strong Oxidizers, Metals, Alkalis.

10.4. Hazardous Decomposition Products
Will not occur.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

**Acute Toxicity - Oral Exposure:**
Harmful if swallowed. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. Dispose of contents in accordance with local, state, federal and international regulations.

**Acute Toxicity - Dermal Exposure:**
Toxic if inhaled. Avoid breathing fumes, mist, vapors, or spray. Use only outdoors or in a well-ventilated area. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

**Acute Toxicity - Inhalation Exposure:**
LDLo, Oral, Rat (Ferric Chloride Hexahydrate) 900 mg/kg; Details of toxic effects not reported other than lethal dose value.

**Acute Toxicity - Other Information:**
Causes severe skin burns and eye damage. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

**Skin Corrosion and Irritation:**
Causes severe skin burns and eye damage. Do not breathe fumes, mist, vapors, or spray. Wear protective gloves and eye protection. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

**Serious Eye Damage and Irritation:**
Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Safety Data Sheet

Respiratory Sensitization:
May cause allergy or asthma symptoms or breathing difficulties if inhaled. Avoid breathing fumes, mist, vapors, or spray. In case of inadequate ventilation wear respiratory protection. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Dispose of contents in accordance with local, state, federal and international regulations.

Skin Sensitization:
Not applicable.

Germ Cell Mutagenicity:
Suspected of causing genetic defects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Carcinogenicity:
Not applicable.

Reproductive Toxicity:
Not applicable.

Specific Target Organ Toxicity from Single Exposure:
May cause damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed or concerned: Call a POISON CENTER or physician. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific Target Organ Toxicity from Repeated Exposure:
Not applicable.

Aspiration Hazard:
May be fatal if swallowed and enters airways. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Additional Toxicology Information:
Data not available.

SECTION 12: Ecological Information

12.1. Ecotoxicity
Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations. Toxic to aquatic life with long lasting effects. Avoid release to the environment. Collect spillage. Dispose of contents in accordance with local, state, federal and international regulations.

12.2. Persistence and Degradability
Data not available.

12.3. Bioaccumulative Potential
Data not available.
Safety Data Sheet

12.4. Mobility in Soil
Data not available.

12.5. Other Adverse Ecological Effects
Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods
Data not available.

SECTION 14: Transportation Information

14.1. Transportation by Land - Department of Transportation (DOT, United States of America)
Sizes: 1 L, 4 L, 20 L, 500 mL
UN Number: UN2582
Proper Shipping Name: Ferric Chloride Solution
Hazard Class: 8
Packing Group: III
Hazard Label(s): 

14.2. Transportation by Air - International Air Transport Association (IATA)
Sizes: 1 L, 4 L, 20 L, 500 mL
UN Number: UN2582
Proper Shipping Name: Ferric Chloride Solution
Hazard Class: 8
Packing Group: III
Hazard Label(s): 

Product Number: 3127
Safety Data Sheet

14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 1 L, 4 L, 20 L, 500 mL
UN Number: UN2582
Proper Shipping Name: FERRIC CHLORIDE SOLUTION
Hazard Class: 8
Packing Group: III
Hazard Label(s):

SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards
Not listed.

15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances
Hydrochloric Acid (CAS # 7647-01-0): 500 lb TPQ (gas only)
Hydrochloric Acid (CAS # 7647-01-0): 5000 lb EPCRA RQ (gas only)

15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals
Ferric Chloride Hexahydrate (CAS # 10025-77-1): 1000 lb final RQ; 454 kg final RQ
Hydrochloric Acid (CAS # 7647-01-0): 5000 lb final RQ; 2270 kg final RQ

15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)
Hydrochloric Acid (CAS # 7647-01-0): 1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)

15.5. Massachusetts Right-to-Know Substance List
Ferric Chloride Hexahydrate (CAS # 10025-77-1): Present
Hydrochloric Acid (CAS # 7647-01-0): Extraordinarily hazardous

15.6. Pennsylvania Right-to-Know Hazardous Substances
Ferric Chloride Hexahydrate (CAS # 10025-77-1): Environmental hazard
Ferric Chloride Hexahydrate (CAS # 10025-77-1): Present
Hydrochloric Acid (CAS # 7647-01-0): Environmental hazard
Hydrochloric Acid (CAS # 7647-01-0): Present
Water (CAS # 7732-18-5): Present
15.7. New Jersey Worker and Community Right-to-Know Components
Ferric Chloride Hexahydrate (CAS # 10025-77-1): corrosive
Ferric Chloride Hexahydrate (CAS # 10025-77-1): sn 1034
Hydrochloric Acid (CAS # 7647-01-0): corrosive
Hydrochloric Acid (CAS # 7647-01-0): sn 1012
Hydrochloric Acid (CAS # 7647-01-0): SN 1012 500 lb TPQ (>=37% concentration); SN 2909 500 lb TPQ (Hydrogen chloride gas only)

15.8. California Proposition 65
Not listed.

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)
Ferric Chloride Hexahydrate (CAS # 10025-77-1): Present (DSL)
Hydrochloric Acid (CAS # 7647-01-0): Present (DSL)
Water (CAS # 7732-18-5): Present (DSL)

15.10. United States of America Toxic Substances Control Act (TSCA) List
All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.
Ferric Chloride Hexahydrate (CAS # 10025-77-1): Present
Hydrochloric Acid (CAS # 7647-01-0): Present [T]
Water (CAS # 7732-18-5): Present

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)
Ferric Chloride Hexahydrate (CAS # 10025-77-1): 231-729-4
Hydrochloric Acid (CAS # 7647-01-0): 231-595-7
Hydrochloric Acid (CAS # 7647-01-0): 231-715-8
Water (CAS # 7732-18-5): 231-791-2
SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

May be corrosive to metals. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. May cause damage to organs. Harmful to aquatic life. Toxic to aquatic life with long lasting effects.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep only in original container. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

IF SWALLOWED: Immediately call a POISON CENTER or physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). IF experiencing respiratory symptoms: Call a POISON CENTER or physician. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. Collect spillage.

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.

Dispose of contents in accordance with local, state, federal and international regulations.

16.2. Miscellaneous Hazard Classes

- **Canadian Carcinogenicity Hazard Class:** Not Applicable.
- **Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.
- **Health Hazards Not Otherwise Classified (HHNOC):** Not Applicable.
- **Biohazardous Infectious Materials Hazard Class:** Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

- **Health:** 2
- **Flammability:** 0
- **Reactivity:** 0
- **Special Hazard:**
16.4. Document Revision

Last Revision Date: 2022-10-20

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.