

## Industrial Chemical Solutions

Issue Date August 2016 Revision Date August 2016 Version 1

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier**

Product Name

**Industrial Descaler 1000**

**Other Means of Identification**

SDS #

**UN/ID No.**

Industrial Descaler 100

**Product Code**

USA

**Synonyms**

*Scale Remover*

**Recommended Use of the Chemical and Restrictions on Use**

Recommended Use Cleans, clarifies and etches.

**Details of the Supplier of the Safety Data Sheet**

Supplier Address Industrial Chemical Solutions LLC  
1705 Dock Street #550  
Tacoma, WA 98402

**Emergency Telephone Number**

Company Phone Number(s)

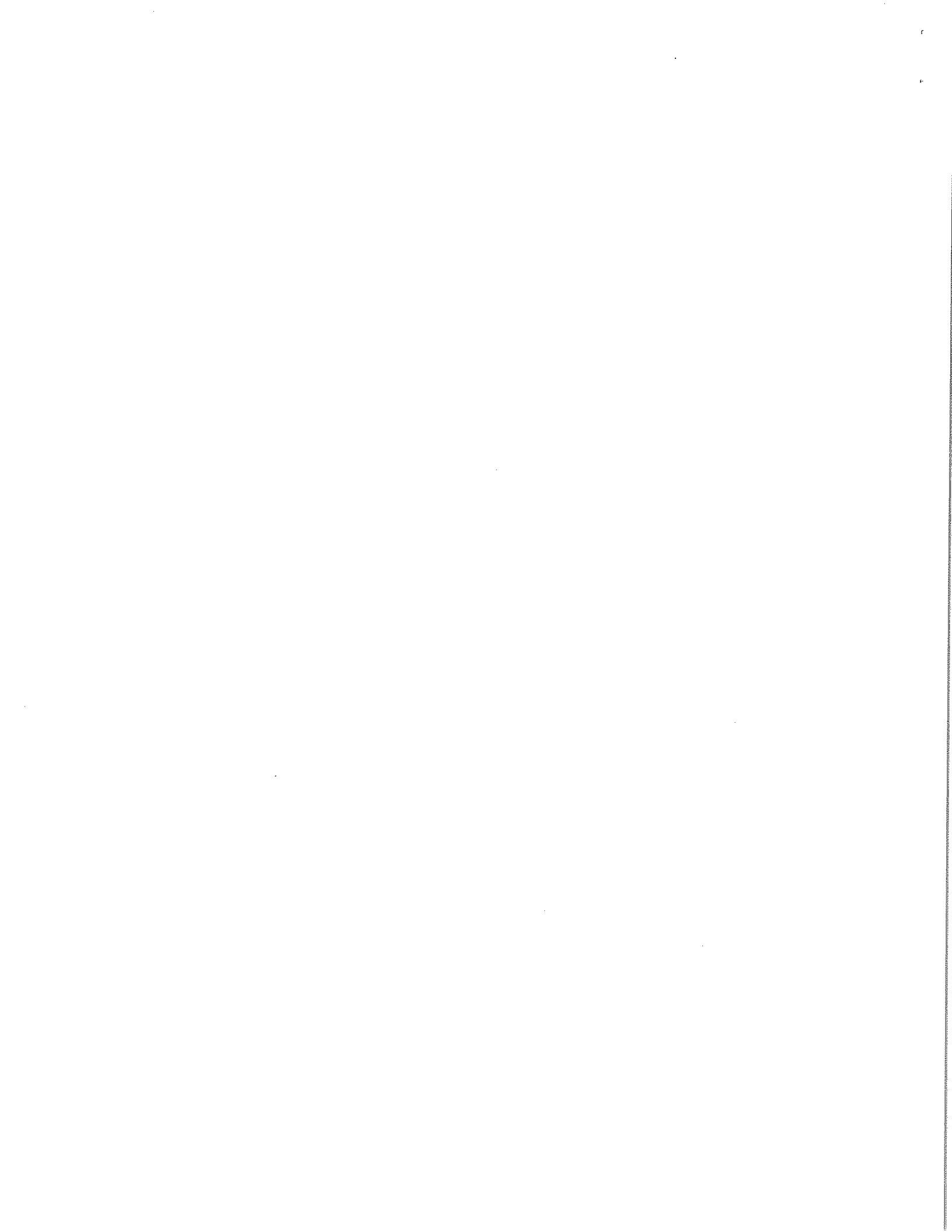
Phone: 206-228-4289

Fax: XXX-XXX-XXXX

**24 Hour Emergency Telephone**

INFOTRAC: 1-800-535-5053 (North America)

INFOTRAC: 1-352-323-3500 (International)



## 2. HAZARDS IDENTIFICATION

### Classification

|  |            |
|--|------------|
| Acute Toxicity - Oral                            | Category 3 |
| Specific Target Organ Toxicity (Single Exposure) | Category 3 |
| Corrosive to Metals                              | Category 1 |

### Signal Word

Danger.

### Hazard Statements

Harmful if swallowed.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
May be corrosive to metals.

### Appearance

Clear to Yellow Liquid.

### Physical State

Liquid.

### Odor

Mildly Pungent.



### Precautionary Statements-Prevention

Wash face, hands and any exposed skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Avoid breathing dust/fumes/gas/mist/vapors/spray.  
Use only outdoors or in a well-ventilated area.  
Keep only in original container.

### Precautionary Statements-Response

**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison Control Center or doctor/physician.

**IF SWALLOWED:** Immediately call a Poison Control Center or doctor/physician.  
Rinse mouth.

Absorb spillage to prevent material damage.

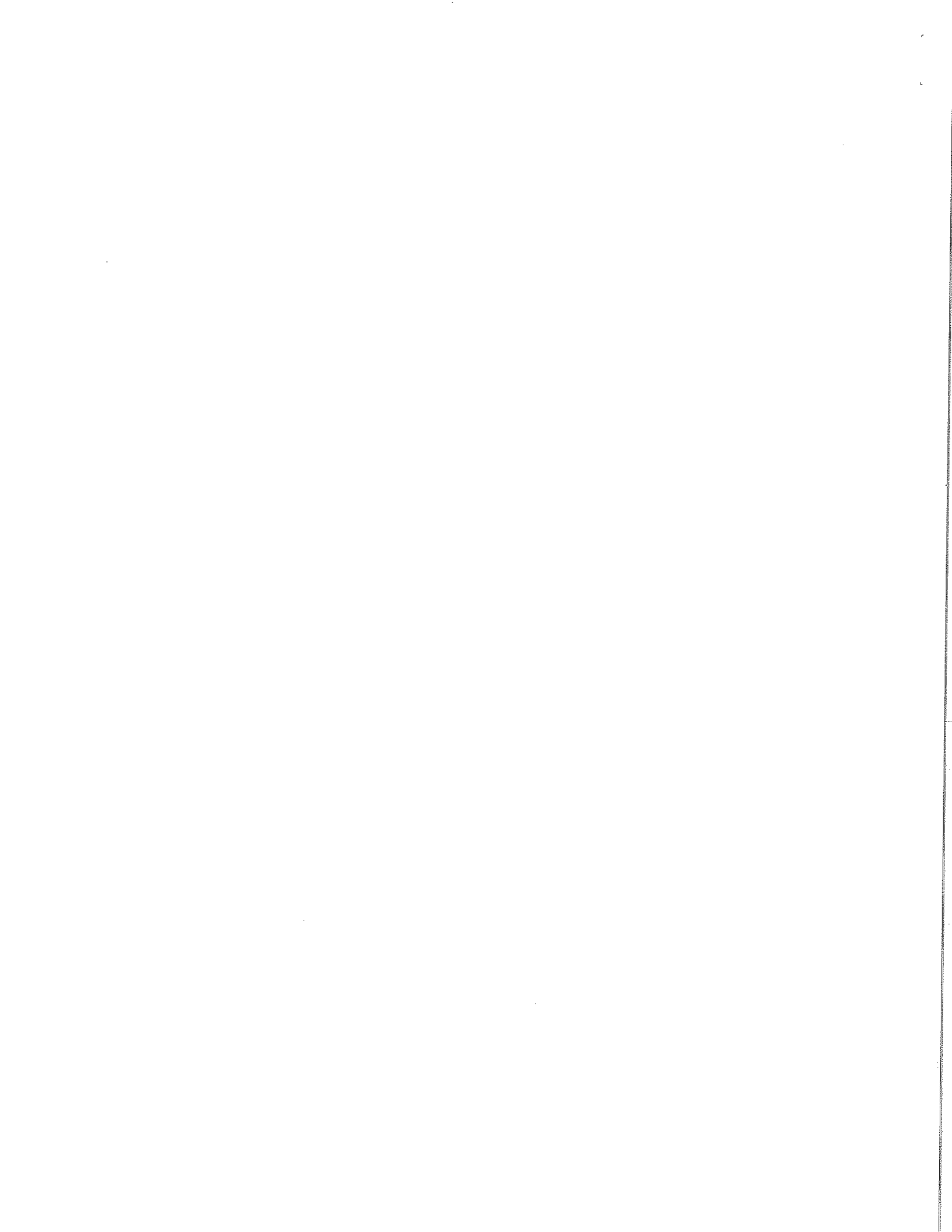
### Precautionary Statements - Storage

Store in a dry, well-ventilated area away from heat and direct sunlight. Do not store near alkalis, highly flammable or oxidizing substances. Store in a closed, properly labeled, acid resistant container. Product must not contact chlorine bleach or cyanide.

**Keep out of reach of children and pets.**

### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.



### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Synonyms

Scale Remover

| Chemical Name     | CAS No.   | Weight-%    |
|-------------------|-----------|-------------|
| Hydrochloric Acid | 7647-01-0 | Proprietary |

The specific chemical identity of this composition is being withheld as a trade secret.

### 4. FIRST AID MEASURES

#### First Aid Measures

- Inhalation** Remove to fresh air. If not breathing, give artificial respiration. Call a physician immediately.
- Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for 15 minutes. Remove contact lenses if present and rinse for an additional 15 minutes. Call a physician immediately.
- Ingestion** Rinse mouth. DO NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a Poison Control Center or physician immediately.
- Skin Contact** Wash off immediately with plenty of water. If skin irritation persists, call a physician.

#### Most Important Symptoms and Effect, both Acute and Delayed

- Symptoms** Remove to fresh air. If not breathing, give artificial respiration. Call a physician immediately.

#### Indication of any Immediate Medical Attention and Special Treatment Needed

- Note to Physicians** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

#### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### Unsuitable Extinguishing Media

Not Determined.

#### Specific Hazards Arising from the Chemical

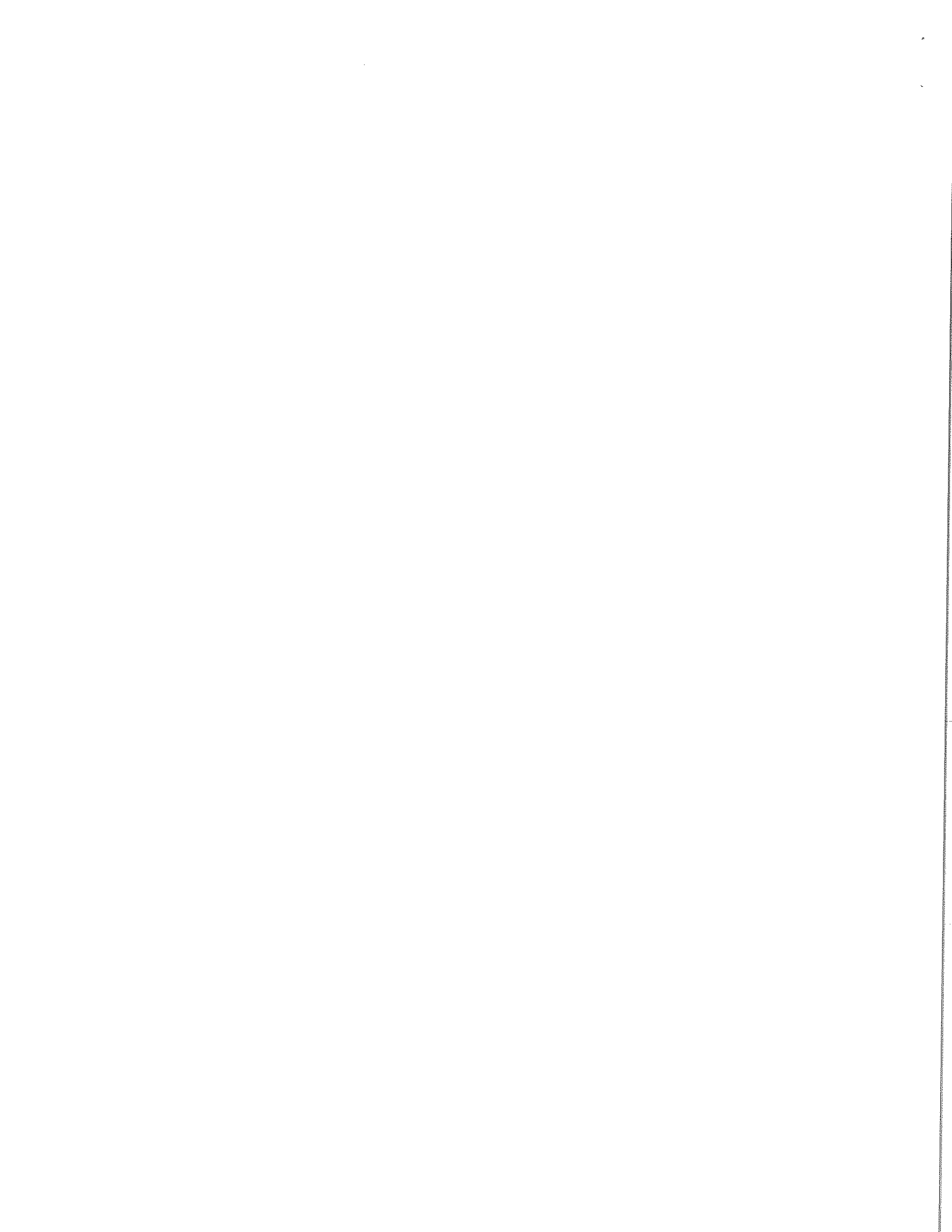
Contact with metals may evolve flammable hydrogen gas. The decomposition can lead to the release of toxic/corrosive gases and vapors.

#### Hazardous Combustion Products

Hydrogen Chloride.

#### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.



## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

#### **Personal Precautions**

Use personal protective equipment as required.

#### **For Emergency Responders**

Restrict access to spill area. Ventilate the area.

#### **Environmental Precautions**

Prevent entry into waterways, sewers, basements or confined areas.  
See Section 12 for additional ecological information.

### Methods and Material for Containment and Cleaning Up

#### **Methods for Containment**

Prevent further leakage or spillage if safe to do so.

#### **Methods for Cleaning Up**

Soak up with inert absorbent material. Flush residue with water.  
Neutralize with soda ash or other acid-neutralizing agent.

## 7. HANDLING AND STORAGE

### Precautions for Safe Handling

#### **Advice on Safe Handling**

Wash face, hands, and any exposed skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Avoid breathing vapors, mist or gas. Use only in well-ventilated areas.

**Keep out of the reach of children and pets.**

### Conditions for Safe Storage, Including any Incompatibilities

#### **Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place.  
Protect from direct sunlight. Keep away from heat. Store away from incompatible materials. Keep in properly labeled containers.  
Store in a dry, well-ventilated area away from heat and direct sunlight. Do not store near alkalis, highly flammable or oxidizing substances. Store in a closed, properly labeled, acid resistant container. Product must not contact chlorine bleach or cyanide.

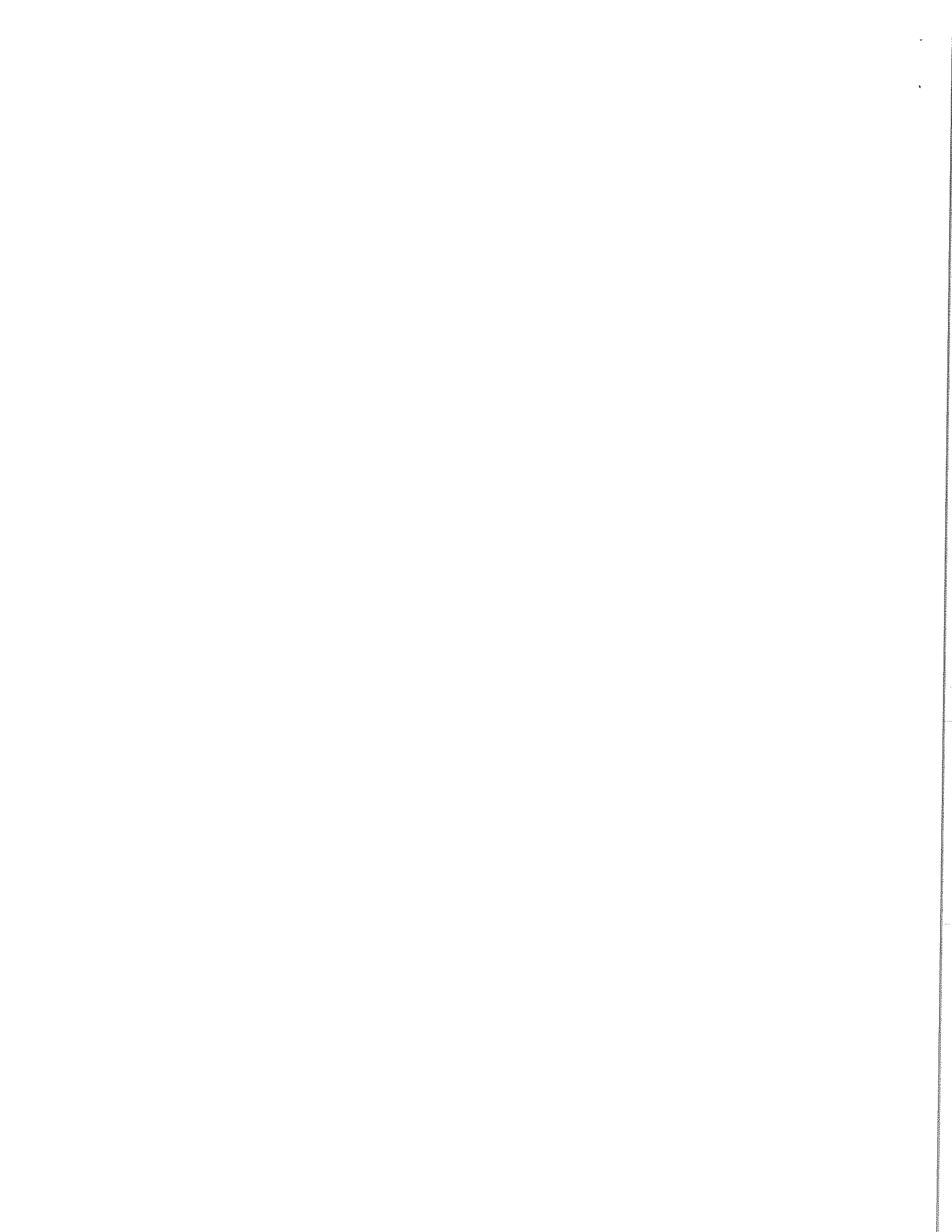
**Keep out of the reach of children and pets.**

#### **Packaging Materials**

Keep in original container.

#### **Incompatible Materials**

Alkalis. Strong oxidizing agents. Acetic anhydride. Oleum. Amines.  
Vinyl acetate. Cyanides. Chlorine bleach.





## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Exposure Guidelines

| Chemical Name                  | ACGIH TLV      | OSHA PEL   | NIOSH IDLH   |
|--------------------------------|----------------|--|--|
| Hydrochloric Acid<br>7647-01-0 | Ceiling: 2 ppm | (vacated) Ceiling: 5 ppm<br>(vacated) Ceiling: 7 mg/m <sup>3</sup><br>Ceiling: 5 ppm<br>Ceiling: 7 mg/m <sup>3</sup> | IDLH: 50 ppm<br>Ceiling: 5 ppm<br>Ceiling: 7 mg/m <sup>3</sup> |

### Appropriate Engineering Controls

#### Engineering Controls

Apply technical measures to comply with the occupational exposure limits.  
Eyewash stations.

### Individual Protection Measures, such as Personal Protective Equipment

#### Eye/Face Protection

Wear goggles or chemical safety glasses. Face protection shield.

#### Skin and Body Protection

Wear water-resistant gloves.  
Wear appropriate clothing to prevent repeated or prolonged skin contact.

#### Respiratory Protection

Under normal conditions, respirator is not normally required.  
Use acid resistant respirator if concentration is high.

#### General Hygiene Considerations

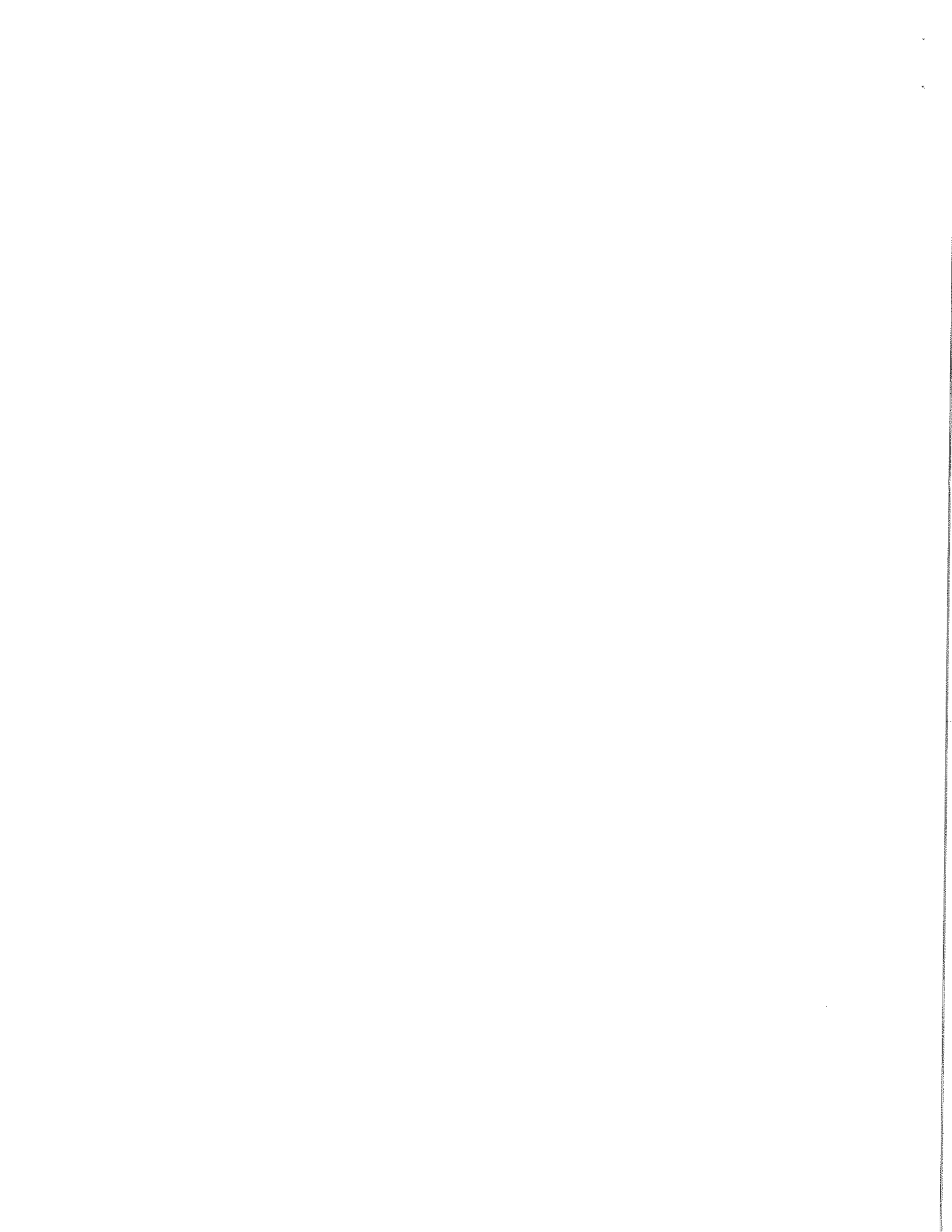
Handle in accordance with good industrial hygiene and safety practices.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

|                |                         |
|----------------|-------------------------|
| Physical State | Liquid.                 |
| Appearance     | Clear to Yellow Liquid. |
| Color          | Clear to Yellow.        |
| Odor           | Mildly Pungent.         |
| Odor Threshold | Not Determined.         |

| Property                       | Values            | Remarks * Method    |
|--------------------------------|-------------------|---------------------|
| pH                             | < 1               |                     |
| Melting Point / Freezing Point | < -58°F / < -50°C |                     |
| Boiling Point / Boiling Range  | ~ 212°F / ~ 100°C |                     |
| Flash Point                    | No Data.          |                     |
| Evaporation Rate               | < 1               | (Butyl acetate = 1) |
| Flammability (Solid/Gas)       | N/A - Liquid.     |                     |
| Upper Flammability Limit       | No Data.          |                     |
| Lower Flammability Limit       | No Data.          |                     |
| Vapor Pressure                 | Not Determined.   |                     |
| Vapor Density                  | > 1               | (Air = 1)           |



## 9. PHYSICAL AND CHEMICAL PROPERTIES (continued)

|                                     |                     |               |
|-------------------------------------|---------------------|---------------|
| <b>Specific Gravity</b>             | 1.11                | @ 68°F (20°C) |
| <b>Water Solubility</b>             | Completely Soluble. |               |
| <b>Solubility in Other Solvents</b> | Not Determined.     |               |
| <b>Partition Coefficient</b>        | Not Determined.     |               |
| <b>Autoignition Temperature</b>     | Not Determined.     |               |
| <b>Decomposition Temperature</b>    | Not Determined.     |               |
| <b>Kinematic Viscosity</b>          | Not Determined.     |               |
| <b>Dynamic Viscosity</b>            | Not Determined.     |               |
| <b>Explosive Properties</b>         | Not Determined.     |               |
| <b>Oxidizing Properties</b>         | Not Determined.     |               |

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical Stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

Reacts with carbon steel, aluminum and copper.

### Hazardous Polymerization

Aldehydes & epoxides, in the presence of HCL, will cause hazardous polymerization.

### Conditions to Avoid

Avoid high temperatures. Incompatible materials.

### Incompatible Materials

Alkalis. Strong oxidizing agents. Acetic anhydride.  
Oleum. Amines. Vinyl acetate. Cyanides. Chlorine bleach.

### Hazardous Decomposition Products

HCL gas evolved from heating; hydrogen gas evolved by reaction.

## 11. TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

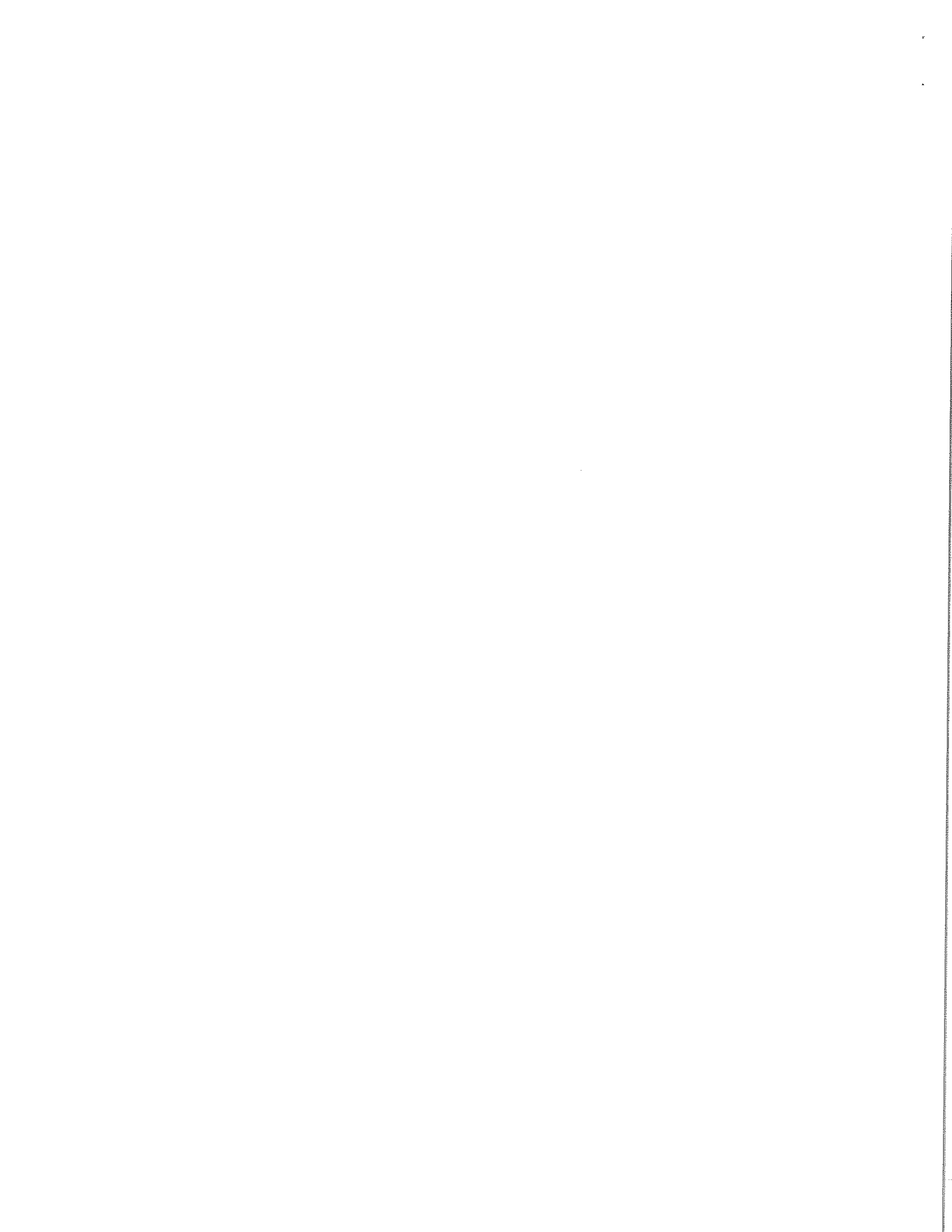
#### **Product Information**

**Inhalation** Avoid breathing vapors or mists.

**Eye Contact** Avoid contact with eyes.

**Skin Contact** No effect for healthy, intact skin.

**Ingestion** Harmful if swallowed.



## 11. TOXICOLOGICAL INFORMATION (continued)

### Component Information

| Chemical Name                  | Oral LD <sub>50</sub> | Dermal LD <sub>50</sub> | Inhalation LC <sub>50</sub> |
|--------------------------------|-----------------------|-------------------------|-----------------------------|
| Hydrochloric Acid<br>7647-01-0 | 700 mg/kg ( Rat )     | > 5010 mg/kg ( Rabbit ) | 3124 ppm ( Rat ) 1 hr.      |

### Information on Physical, Chemical and Toxicological Effects

**Symptoms** Please see section 4 of this SDS for symptoms.

### Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

| Chemical Name                  | ACGIH | IARC    | NTP | OSHA |
|--------------------------------|-------|---------|-----|------|
| Hydrochloric Acid<br>7647-01-0 | N/A   | Group 3 | N/A | N/A  |

IARC (International Agency for Research on Cancer)  
Group 3 IARC components are "not classifiable as human carcinogens"

### STOT - Single Exposure

May cause respiratory irritation.  
May cause drowsiness or dizziness.

### Numerical Measures of Toxicity

Not Determined.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

| Chemical Name                  | Algae/aquatic plants   | Fish   | Toxicity to microorganisms | Crustacea   |
|--------------------------------|--|--|----------------------------|---|
| Hydrochloric Acid<br>7647-01-0 | EC <sub>50</sub> Selenastum capricornutum (Green Algae):<br>0.0492 mg/L/72 hr.<br>(pH 5.3) | 282: 96 hr. Gambusia affinis mg/L<br>LC <sub>50</sub> static | None Known                 | LC <sub>50</sub> : Species: Cragnon cragnon (Common shrimp, adult);<br>Conditions; saltwater, renewal, 15° C;<br>Concentration: 260 mg/L for 48 hr. |

### Persistence and Degradability

Not Determined.

### Bioaccumulation

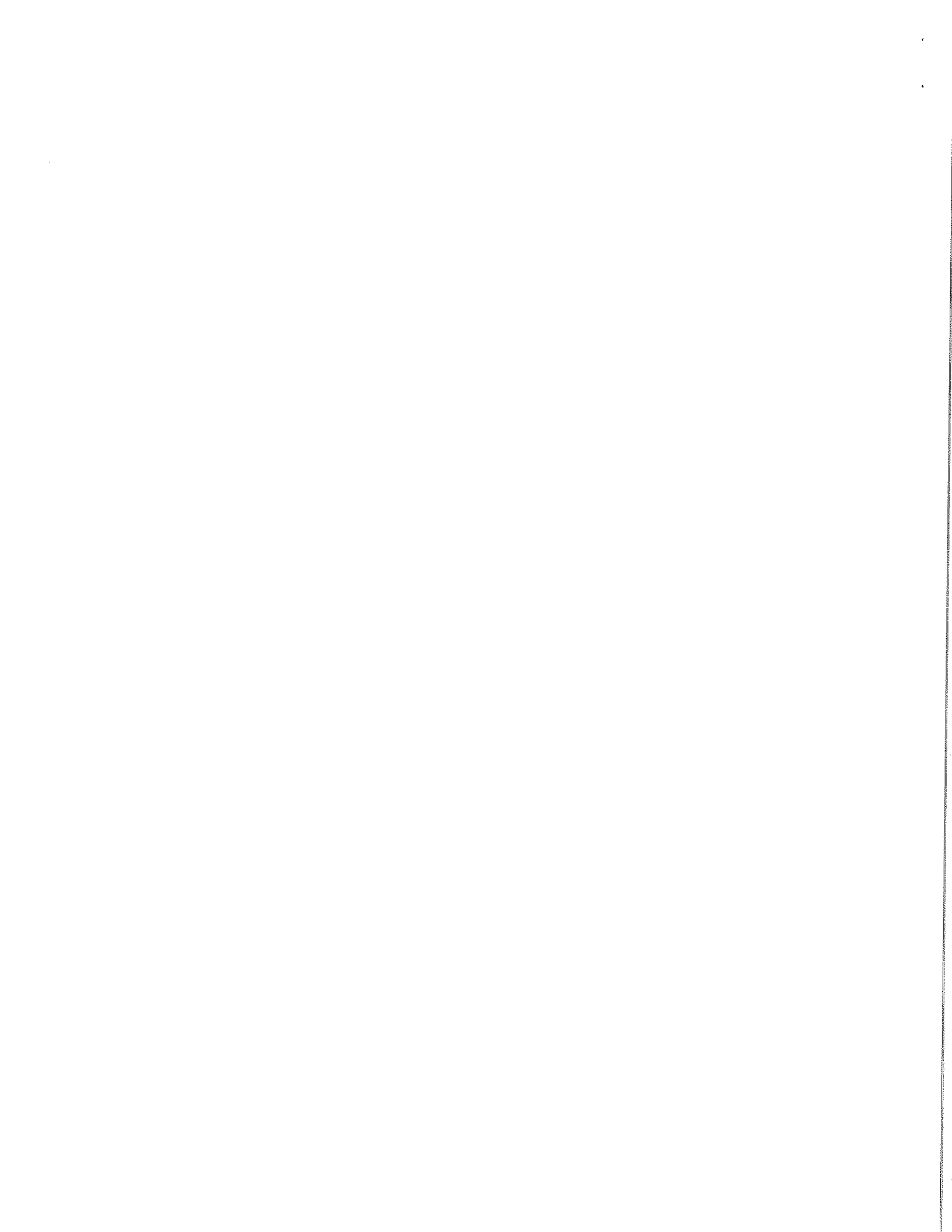
Not Determined.

### Mobility

Not Determined.

### Other Adverse Effects

Not Determined.



### 13. DISPOSAL CONSIDERATIONS

#### Waste Treatment Methods

##### **Disposal of Wastes**

Dispose according to all local, state and federal regulations.

##### **Contaminated Packaging**

Dispose according to all local, state and federal regulations.

##### **Steps to be Taken in Case Material is Released or Spilled**

Deny access to the area. Ventilate the area well. Large spills or leaks should be cleaned up and controlled with an inert absorbent material. Flush surface with water and neutralize with soda ash or other acid-neutralizing agent. Prevent material from entering waterways. CERCLA reportable Quantity (RQ) is 5,000 lbs.

### 14. TRANSPORT INFORMATION

#### Note

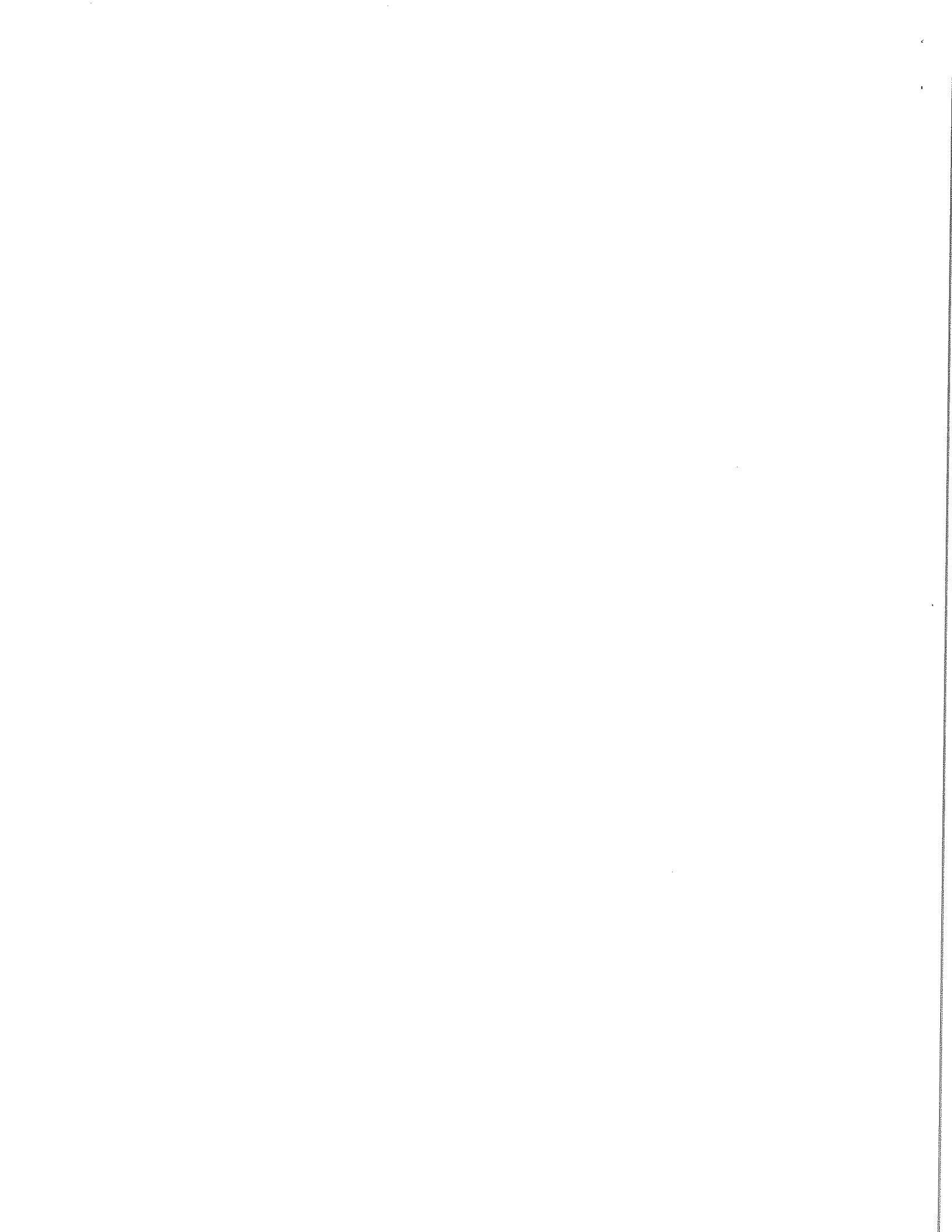
Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. Quarts and gallons are shipped as Limited Quantity. Large sizes, 5 gallons or more, are shipped as class 8.

|                   |                      |  |
|-------------------|----------------------|--|
| <b><u>DOT</u></b> | UN/ID No             | UN1760                                       |
|                   | Proper Shipping Name | Corrosive Liquid, n.o.s. (Hydrochloric Acid) |
|                   | Hazard Class         | 8  |
|                   | Packing Group        | III  |

|                    |                      |  |
|--------------------|----------------------|--|
| <b><u>IATA</u></b> | UN/ID No             | UN1760                                       |
|                    | Proper Shipping Name | Corrosive Liquid, n.o.s. (Hydrochloric Acid) |
|                    | Hazard Class         | 8  |
|                    | Packing Group        | III  |

|                    |                      |  |
|--------------------|----------------------|--|
| <b><u>IMDG</u></b> | UN/ID No             | UN1760                                       |
|                    | Proper Shipping Name | Corrosive Liquid, n.o.s. (Hydrochloric Acid) |
|                    | Hazard Class         | 8  |
|                    | Packing Group        | III  |

|                    |                       |
|--------------------|-----------------------|
| <b><u>NMFC</u></b> | NMFC 44155.4 Class 70 |
|--------------------|-----------------------|





**15. REGULATORY INFORMATION**

**International Inventories**

Not Determined.

**Legend:**

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/  
European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*

**US Federal Regulations**

**SARA 313**

| Chemical Name     | CAS No    | Weight %    | SARA-Threshold Values % |
|-------------------|-----------|-------------|-------------------------|
| Hydrochloric Acid | 7647-01-0 | Proprietary | 1                       |

**CWA (Clean Water Act)**

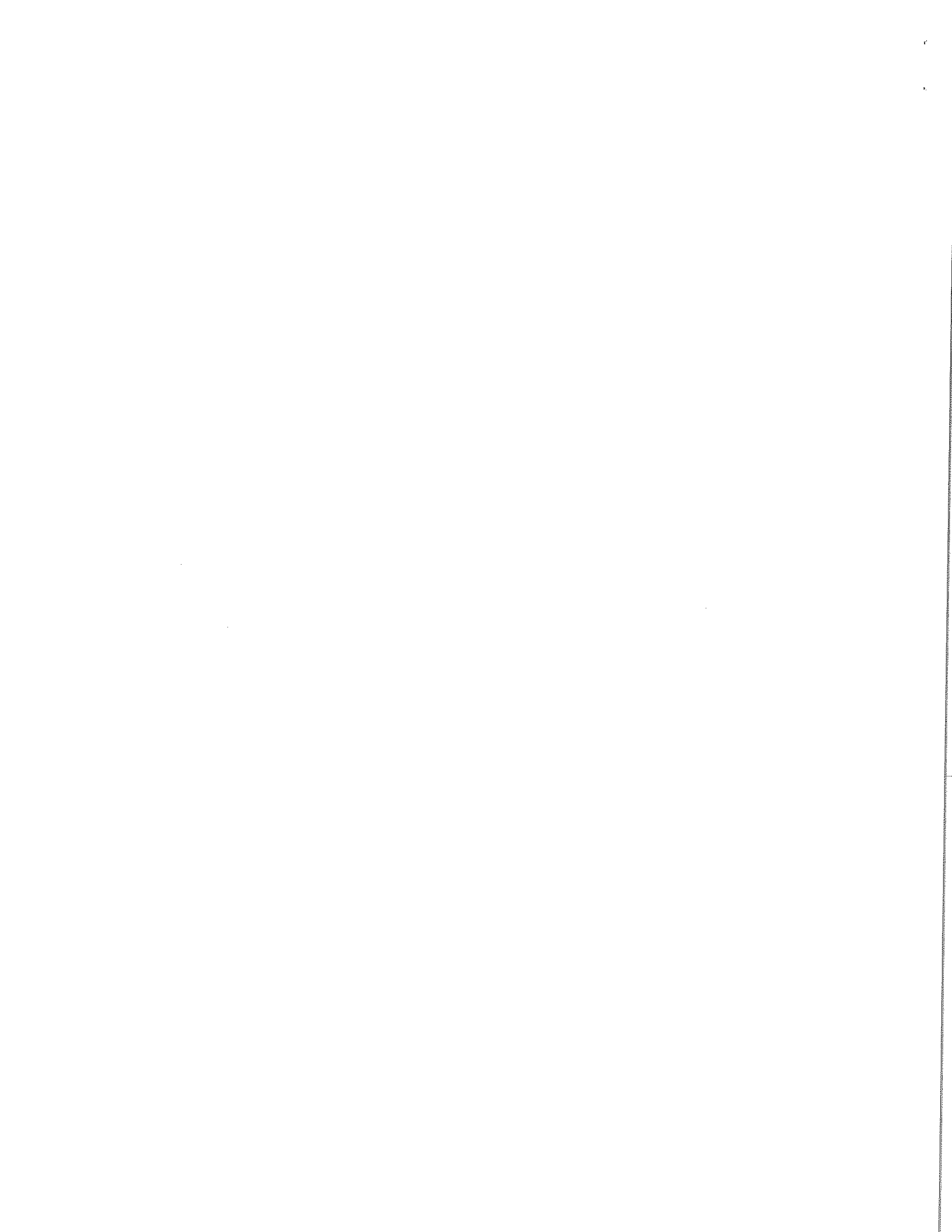
| Chemical Name                  | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|--------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Hydrochloric Acid<br>7647-01-0 | 5000 lb.                    | N/A                    | N/A                       | X                          |

| Chemical Name                  | Hazardous Substances RQs | CERCLA /SARA RQ | Reportable Quantity (RQ)                    |
|--------------------------------|--------------------------|-----------------|---|
| Hydrochloric Acid<br>7647-01-0 | 5000 lb.                 | 5000 lb.        | RQ 5000 lb. final RQ<br>RQ 2270 kg final RQ |

**US State Regulations**

**U.S. State Right-to-Know Regulations**

| Chemical Name                  | New Jersey | Massachusetts | Pennsylvania |
|--------------------------------|------------|---------------|--------------|
| Hydrochloric Acid<br>7647-01-0 | X          | X             | X            |



## 16. OTHER INFORMATION

### NFPA

**Health Hazards**

2

**Flammability**

0

**Instability**

0

**Special Hazards**

Not Determined.

### HMS

**Health Hazards**

Not Determined.

**Flammability**

Not Determined.

**Physical Hazards**

Not Determined.

**Personal Protection**

Not Determined.

**Issue Date** August 2016

**Revision Date** August 2016

**Revision Note** New format

### Disclaimer

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End of Safety Data Sheet

