

MATERIAL SAFETY DATA SHEET
Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

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SECTION 1

SUNNYSIDE CORPORATION
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EMERGENCY TELEPHONE

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FOR INFORMATION:

(847) 541-5700

- SUNNYSIDE CORPORATION
- CHEM TREC

Product Class: Inorganic Acid
Trade Name: HYDROCHLORIC ACID
(Muriatic Acid)

Manufacturer's Code:
NPCA HMIS:

710
Health: 3
Fire: 0
Reactivity: 1

Product Appearance and Odor: Clear, colorless to pale yellow liquid, pungent, irritating odor.

SECTION 2 – HAZARDOUS INGREDIENTS**OCCUPATIONAL EXPOSURE LIMITS**

| INGREDIENT | CAS # | PERCENT | ACGIH | ACGIH | OSHA | OSHA | VAPOR PRESSURE |
|-------------------|-----------|---------|--------------|---------------|--------------|---------------|------------------------------------|
| | | | TLV (TWA) | TLV (STEL) | PEL (TWA) | PEL (STEL) | |
| Hydrogen Chloride | 7647-01-0 | | 5 PPM | 5 PPM | 5 PPM | 5 PPM | Approximately 35 MM Hg @ 77° F. |
| | | | | (Ceiling) | | (Ceiling) | |

SECTION 3 – EMERGENCY AND FIRST AID PROCEDURES

| | |
|---------------|---|
| Eye Contact: | Immediately flush the eyes with large quantity of water while holding the eyelids apart, for at least 15 to 20 minutes. Severe eye injury can occur, particularly if rinsing is delayed. Get medical attention immediately. Apply cool packs on eyes while transporting victim to medical facility. |
| Skin Contact: | Remove contaminated clothing and shoes immediately. Wash affected area with soap and large amounts of water for at least 15 to 20 minutes. In case of chemical burns, cover area with sterile, dry dressing. Keep affected area cool. Get medical attention immediately. |
| Inhalation: | Remove to fresh air. Administer oxygen as soon as possible (6 liters per minute) if breathing is difficult. If not breathing, give artificial respiration. Immediately contact a physician. Keep the victim warm and at rest. |
| Ingestion: | Do not induce vomiting. If conscious, give large amounts of water or milk. If vomiting persists, administer fluids repeatedly. Maintain airway and treat for shock. If vomiting occurs, keep head below hips to prevent aspiration. Get medical attention immediately. |

SECTION 4 – PHYSICAL DATA

The following data represent approximate or typical values. They do not constitute product specifications.

| | | | |
|----------------------|---------------------------|-----------------------|------------------|
| Boiling Range: | Approx. 183° (F) - I.B.P. | Vapor Density: | Heavier than air |
| Evaporation Rate: | Slower than ether | % Volatile By Volume: | 100% |
| Weight Per Gallon: | 9.66 lbs | | |
| Solubility in Water: | 100 Wt.% pH: <1.0 | | |

SECTION 5 – FIRE AND EXPLOSION DATA

| | |
|-------------------------------------|---|
| Flammability Classification: | Non-flammable |
| Flash Point: | Not applicable |
| Lower Explosive Limit: | Not applicable |
| Extinguishing Media: | Use water spray, fog, foam, dry chemicals, carbon dioxide or other agents as appropriate for surrounding fire. |
| Unusual Fire and Explosion Hazards: | Reacts with active metals (Potassium, sodium, calcium, powdered aluminum, zinc, magnesium) to produce flammable hydrogen. |
| Special Fire Fighting Procedures: | Use self-contained breathing apparatus and full protective acid resistant clothing. Water spray should be used to cool fire exposed containers and to control vapors. |

SECTION 6 – HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: 5 PPM - Ceiling Limit (ACGIH)
EFFECTS OF OVEREXPOSURE

Acute Inhalation: Inhalation of fumes at lower levels may cause irritation and burning of the throat, coughing and choking. At higher levels (above 50 PPM), inflammation of the nose, throat or larynx, bronchitis, pneumonia, and headache may occur. Severe cases may exhibit necrosis of the windpipe and bronchial epithelium, damage to pulmonary blood vessels and emphysema.

Chronic Inhalation: Repeated or prolonged overexposure may cause erosion and discoloration of exposed teeth, chronic bronchitis and gastritis.

Acute Eye Contact: Contact may cause severe irritation, conjunctivitis, corneal necrosis and burns.

Chronic Eye Contact: Conjunctivitis or effects similar to those for acute exposure may occur.

Acute Skin Contact: Contact may cause severe irritation, inflammation, ulceration, necrosis and chemical burns.

Chronic Skin Contact: Repeated or prolonged contact may cause chronic irritation and dermatitis. Photosensitization may also occur.

Acute Ingestion: Ingestion may cause burns of the mouth, throat, esophagus and stomach with pain, nausea, salivation, vomiting, diarrhea, chills, shock and intense thirst. Nephritis, fever and perforation of the intestinal tract, and circulatory collapse may occur.

Carcinogenicity: This product is not listed as a carcinogen by NTP, IARC or OSHA.

Medical Conditions Aggravated by Exposure: Individuals with pre-existing diseases of the lungs may have increased susceptibility to the toxicity of excessive exposures.

SECTION 7 – REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Avoid contact with metals and strong oxidizers.

Incompatibility (Materials to Avoid): Avoid base and corrosive materials.

Hazardous Decomposition Products: Flammable hydrogen gas can be produced by reaction with most metals and may form explosive mixtures with air. Chlorine gas will be released by mixing with strong oxidizers.

Hazardous Polymerization: Will not occur.

SECTION 8 – SPILL OR LEAK PROCEDURES

Steps to be taken in case material is spilled or released: Evacuate area and deny entry by unauthorized personnel. Do not breathe vapors, stay upwind. For large spills, contain and pump into tanks, which have been constructed for Hydrochloric Acid service. Full acid resistant suits and self-contained breathing apparatus should be worn during emergency operations. Knock down vapors with water spray or water fog. Water used to knock down vapors may become corrosive and should be contained properly for later disposal. Neutralize spill with slaked lime, sodium bicarbonate or crushed limestone. Since neutralization generates heat (exothermic reaction), the reaction can be violent. The acid should be diluted and cooled before attempting to neutralize. Spills must be neutralized and federal, state and local regulations must be consulted before flushing to sewer. For small spills, take up with sand or other absorbent material and react with dry alkali (soda ash or lime). Place into containers for later disposal. Adhere to federal, state and local regulations on reporting releases.

Waste disposal method: Landfill or neutralize in accordance with federal, state and local environmental regulations.

SECTION 9 – SAFE HANDLING AND USE INFORMATION

Respiratory Protection: Use NIOSH/MSHA approved acid-gas respirator for areas where airborne exposure is excessive. Do not exceed the working limits of the respirator.

Ventilation: Provide good general room ventilation to keep workroom concentration below current applicable OSHA safety and health requirements (Section 2). Use local exhaust ventilation at points of vapor emission.

Protective Gloves: Wear protective gloves, such as rubber or neoprene, to minimize skin contact.

Eye Protection: Chemical safety goggles and a full faceshield to prevent contact.

Other Protective Equipment: Eye wash facility should be in close proximity. Use of rubberized coveralls, rubber shoes, and emergency shower availability are recommended.

SECTION 10 – SPECIAL PRECAUTIONS

Dept. of Labor Storage Category: Non-flammable liquid.

Hygienic Practices: Wash thoroughly after contact. Wash protective clothing prior to re-use.

Additional Precautions: Do not get in eyes or on skin or clothing. Avoid breathing vapors. Keep containers closed. Protect containers from physical damage. Store in cool, well ventilated place, separate from all oxidizing materials. Keep lights, fire and sparks away from container openings.

Empty Container Warning: "Empty" containers contain hazardous acid vapor or liquid; never add to, mix or store any other product in any container that contains or has contained hydrochloric acid. Mixing hydrochloric acid with some commonly available chemicals and some household products, such as bleach, can cause a violent reaction or the evolution of poisonous or explosive gases.

SECTION 11 – ADDITIONAL INFORMATION

This product contains the following toxic chemical(s) which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

| TOXIC CHEMICAL | CAS # | APPROXIMATE % BY WEIGHT |
|-------------------|-----------|----------------------------|
| Hydrochloric Acid | 7647-01-0 | 31.45% |

SARA Title III Hazard Categories: Immediate (Acute) Health Hazard

Common Names: Hydrogen Chloride Solution, HCl, Aqueous Solution of Hydrochloric Acid, Muriatic Acid

California Proposition 65: This product contains trace amounts of chemicals known to the State of California to cause cancer, and trace amounts of chemicals known to the State of California to cause birth defects or other reproductive harm.

TRANSPORTATION

U.S. D.O.T. Proper Shipping Name: Hydrochloric Acid, Solution

U.S. D.O.T. Hazard Class & Packing Group: 8, PG II

U.S. D.O.T. I.D. Number: UN 1789

U.S. D.O.T. Hazardous Substance: Hydrochloric Acid RQ 5000 lbs.

Refer to 49 CFR for possible exceptions and exemptions.