

Material Safety Data Sheet

Section 1: Chemical Product and Company Identification

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| Catalog Number: 3584, 3585, 3590, 3590.01, 3590.05, 3590.3, 3593, 3595, 3595.25, 3596, 3597, 3598, 3600, 3601, 3603, 3610, 3611, 3612, 3614, 3616, 3616.1, 3618, 3619, 3620, 3625, 3627, 3630, 3638, 3640, 3643, 3645, 3647, 3647.7, H-187, H-190, H-195, H-200, H-205, H-210, H-215, H043600, H043605, H043640, H043700, H043800, H043900, H043905, H043950, H043970, H044000, H044100, H044150, H044170, HX-1001, HX-916, HX-932, R3590020, R3597100, R3600200, R3646000, SH043580, SH043600, SH043605, SH043700, SH043800, SH043900, SH043950, SH043987, SH044000, SH044100, SH044150 | |
| Product Identity: HYDROCHLORIC ACID, 0.001 - 0.49 Normal Aqueous Solutions | |
| Manufacturer's Name: RICCA CHEMICAL COMPANY LLC | Emergency Contact(24 hr) -- CHEMTREC® Domestic: 800-424-9300 International: 703-527-3887 |
| CAGE Code: 0V553 | |
| Address: 448 West Fork Dr Arlington, TX 76012 | Telephone Number For Information: 817-461-5601 |
| Date Prepared: 6/16/98 | Revision: 22 Last Revised: 03/22/2006 Date Printed: 05/20/2006 9:45:08 am |

Section 2. Composition/Information on Ingredients

| Component | CAS Registry # | Concentration | ACGIH TLV | OSHA PEL |
|-------------------|----------------|---------------|--------------------------------|--------------------------------|
| Hydrochloric Acid | 7647-01-0 | < 4 | C 5 ppm C 7.5 mg/m3 | C 5 ppm C 7 mg/m3 |
| Water, Deionized | 7732-18-5 | Balance | Not Available Not Available | Not Available Not Available |

Section 3: Hazard Identification

Emergency Overview: These items are mildly corrosive and should be handled with care. Wash areas of contact with water. Does not present any significant health hazards at these low concentrations.

Target Organs: eyes, skin, respiratory system.

Eye Contact: May cause slight irritation.

Inhalation: May cause irritation.

Skin Contact: May cause slight irritation.

Ingestion: May cause nausea, vomiting and diarrhea.

Chronic Effects/Carcinogenicity: None

IARC - Hydrochloric Acid is unclassifiable as to carcinogenicity to humans.

MSDS

HYDROCHLORIC ACID, 0.001 - 0.49 Normal Aqueous Solutions

NTP - No.

OSHA - No.

Reproductive Information: Reproductive effects cited in 'Registry of Toxic Effects of Chemical Substances' for Hydrochloric Acid.

Teratology (Birth Defect) Information: Mutation data cited in 'Registry of Toxic Effects of Chemical Substances' for Hydrochloric Acid.

Section 4: First Aid Measures - In all cases, seek qualified evaluation.

Eye Contact: Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops.

Inhalation: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

Skin Contact: Flush with plenty of water for at least 15 minutes. Call a physician if irritation develops.

Ingestion: Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

Section 5: Fire Fighting Measures

Flash Point: Not Available.

Method Used: Not Available.

LFL: Not Available.

UFL: Not Available.

Extinguishing Media: Use any means suitable for extinguishing surrounding fire (water or water spray). Neutralize with soda ash or slaked lime.

Fire & Explosion Hazards: Not considered to be a fire or explosion hazard. May react with metals to release flammable Hydrogen gas.

Fire Fighting Instructions: Use normal procedures/instructions.

Fire Fighting Equipment: Use protective clothing and breathing equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse. Wash site with soda ash solution. Always dispose of in accordance with local regulations.

Section 7. Handling and Storage

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

Safety Storage Code: General

Section 8: Exposure Control/Personal Protection

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

Section 9: Physical and Chemical Properties

Appearance: Clear, Colorless Liquid

Odor: Odorless to slightly pungent

Solubility in Water: Infinite

Specific Gravity: Approximately 1

pH: <1

Boiling Point(°C): Approximately 100

Melting Point(°C): Approximately 0

Vapor Pressure: Not Applicable.

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal conditions of use and storage.

Incompatibility: Most metals, Alkalis, active metals, Cyanides, Sulfides, Sulfites, Metal Oxides, Formaldehyde.

Hazardous Decomposition Products: Fumes of Hydrogen Chloride and Hydrogen in contact with metals, Chlorine gas from Oxidizers.

Hazardous Polymerization: Will not occur.

MSDS

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Section 11. Toxicological Information

LD50, Oral, Rabbit (Hydrochloric Acid) 900 mg/kg; Details of toxic effects not reported other than lethal dose value. LCLo, inhalation, human: 3000 ppm/5 minutes: No toxic effects noted.

Section 12. Ecological Information

Ecotoxicological Information: Hydrogen Chloride has slight acute and chronic toxicity to aquatic life.

Chemical Fate Information: Virtually 100% of Hydrogen Chloride will eventually end up in the air.

Section 13. Disposal Considerations

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse. Always dispose of in accordance with local, state and federal regulations.

Section 14. Transport Information

Part Numbers:

This product is not regulated.

Section 15. Regulatory Information (Not meant to be all inclusive - selected regulation represented)

OSHA Status:The above items either do not contain any specifically hazardous material or the potentially hazardous material is present in such low concentration that the items do not present any immediate threat to health and safety. These items do not meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material.

TSCA Status:All components of this solution are listed on the TSCA Inventory or are mixtures (hydrates) of items listed on the TSCA Inventory.

Sara Title III:

Section 302 Extremely Hazardous Substances:Not Applicable.

Section 311/312 Hazardous Categories:No

Section 313 Toxic Chemicals:Not Applicable.

California: None Reported.

Pennsylvania: Hydrochloric Acid is listed as an Environmental Hazard on the state's Hazardous Substances List.

RCRA Status: Not Applicable.

CERCLA Reportable Quantity: Hydrochloric Acid - 5,000 pounds.

WHMIS: Not Applicable.

Section 16. Other Information

MSDS

NFPA Ratings:

Health: 1 Flammability: 0 Reactivity: 0 Special Notice Key:None

HMIS Ratings:

Health: 1 Flammability: 0 Reactivity: 0 Protective Equipment:B (Protective Eyewear, Gloves)

Rev 1, 10-19-98: (Section 1) Specified catalog numbers; (Section 16) Removed periods from NFPA and HMIS; added ® to HMIS.
Rev 2, 2-18-99: (Section 1) corrected catalog number 2585 to 3585.
Rev 3, 4-19-99: (Section 1) added catalog number 3630; changed range to include up to 0.47 Normal; changed concentration range to <1.7% (w/w); (Section 3) added mutation and reproductive data cited; IARC not classifiable as to carcinogenicity to humans; Oral, Rat corrected to Oral, Rabbit; (Section 15) added Florida and Pennsylvania state information.
Rev 4, 5-19-99: (Section 1) added catalog numbers 3603 and 3612.
Rev 5, 8-30-99: (Section 1) added catalog number 3601.
Rev 6, 4-14-2000: Reformatted from WordPerfect® to Microsoft Word®; (Section 1) Revised emergency telephone number to CHEMTREC® 800-424-9300; added catalog numbers 3590.05, 3616, 3616.1, 3638, 3640, 3643, 3645, 3647, 3647.7; revised title range to 0.001 - 0.49 Normal; (Section 2) revised exposure limits from mg/m3 to ppm; (Section 4) removed note to physician; (Section 7) added storage code; (Section 15) added TPQ information.
Rev 7, 7-31-2000: (Section 2) corrected percent concentration from < 1.7 to < 4.
Rev 8, 10-22-2001: Reformatted to electronic data format; (Section 1) added catalog number 3627.
Rev 9, 04-08-2002: Re-entered revision notes.
Rev 10, 07-19-2002: (Section 1) added catalog number 3611.
Rev 11, 09-25-2002: (Section 1) added Solutions Plus catalog numbers H043900 and H043905.
Rev 12, 11-15-2002: (Section 1) added Solutions Plus catalog numbers H043600, H043605, H043640, H043700, H043800, H043970, H044000 and H044100.
Rev 13, 03-24-2003: (Section 1) added Solutions Plus catalog number H044170. Rev 14, 04-16-2003: (Section 1) added Solutions Plus catalog number H043950.
Rev 15, 05-14-2003: (Section 1) added Solutions Plus catalog number H044150.
Rev 16, 11-16-2004: added cat number R3590020.
Rev 17, 12-08-2004: added Solutions Plus cat no SH043580.
Rev 18, 03-15-2005: (Section 1) added cat no R3597100.
Rev 19, 04-18-2005: (Section 1) added cat no R3646000.
Rev 20, 10-19-2005: (Section 1) added Red Bird cat nos. H-210 and HX-932.
Rev 21, 12-28-2005: (Section 1) added catalog number R3600200 and Red Bird cat no. HX-1001.
Rev 22, 03-22-2006: (Section 1) added Red Bird catalog numbers H-187 and HX-916.

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.