

MATERIAL SAFETY DATA SHEET



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DATE PREPARED: 10/08/1999
MSDS No: H028
Hydrochloric Acid, 28%

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Hydrochloric Acid, 28%
Product Description: Hydrochloric Acid, 28%
Product Code: H028
Product Name: Hydrochloric Acid, 28%
Chemical Family: Mineral Acid
Molecular Formula: HCl
Generic Name: Muratic Acid

MANUFACTURER:
HydroChem Industrial Services, Inc.
900 Georgia Ave.
Deer Park, TX 77536
Customer Service: (800) 934-9876

24 HR. EMERGENCY TELEPHONE
NUMBERS:
Emergency Contact: HydroChem ER
Emergency Phone: (800) 569-4889

2. COMPOSITION/INFORMATION ON INGREDIENTS

	<u>wt. %</u>	<u>CAS Registry #</u>
Hydrogen chloride	28	7647-01-0
Water	72	7732-18-5

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

	EXPOSURE LIMITS		
	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>Supplier</u>
Hydrogen chloride	5 mg/m3 (ceiling)	5 ppm STEL (ceiling)	

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS:

Strong acid.
Corrosive.
Do not get in eyes, on skin or clothing.
Do not breath vapors

4. FIRST AID MEASURES

EYES:

Immediately flush eyes with water for 30 minutes while holding eyelids open. Seek medical attention.

SKIN:

Immediately wash with soap and water. Rinse thoroughly. Seek medical attention if effects occur. Launder contaminated shoes and clothing before reuse.

INGESTION:

DO NOT induce vomiting. Drink large quantities of milk (preferred) or water and give milk of magnesia. Take to hospital at once.

INHALATION:

Remove to fresh air. See a doctor at once. If breathing has stopped, begin artificial respiration.

5. FIRE FIGHTING MEASURES

Flashpoint and Method: Not Applicable

Flammable Limits: Not Applicable

Autoignition Temperature: None

GENERAL HAZARD:

Not Flammable, but reacts with most metals to form flammable hydrogen gas.

FIRE FIGHTING PROCEDURES:

Use water fog to cool hot containers.

FIRE FIGHTING EQUIPMENT:

As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES:

Evacuate the immediate area.

Cover with dry lime, soda ash or sand.

Place in covered container (plastic if acidic).

Wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

GENERAL PROCEDURES:

Refer to Section 8.

STORAGE:

Keep container tightly closed.
Store in corrosion proof area.
Isolate from incompatible materials.
Do not store near oxidizing materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Ventilation - General and local ventilation are required.

PERSONAL PROTECTION

EYES AND FACE:

Chemical goggles with face shield required and an eye wash in work area.

RESPIRATORY:

Use NIOSH approved respirator with organic vapor/acid gas protection (color coded yellow) in nonventilated area and/or exposure above TLV. Use SCBA (self-contained breathing apparatus) in confined areas and for emergencies.

PROTECTIVE CLOTHING:

Face shield, boots, protective suit and impervious (neoprene) gloves.

OTHER USE PRECAUTIONS:

Safety shower and eye wash in the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Odor: Pungent

Color: Colorless

pH: <1

Percent Volatile: 100

Vapor Pressure: 4.9 mm Hg at 20°C

Vapor Density: >1 (Air = 1)

Boiling Point: 207°F 97°C

Solubility in Water: Completely Miscible in All Proportions

Specific Gravity: 1.142 (water=1)

10. STABILITY AND REACTIVITY

STABLE: Yes

HA ZARDOUS POLYMERIZATION: No

HA ZARDOUS DECOMPOSITION:

Hydrogen, hydrogen chloride, chlorine and oxides of chlorine.

INCOMPATIBLE MATERIALS:

Bases, oxidizers (releases chlorine and chlorine oxides), metals (releases hydrogen gas), sulfuric acid, carbonates.

11. TOXICOLOGICAL INFORMATION

ACUTE

Eyes: Corrosive. Rapidly causes pain, burns, corneal injury. May cause permanent damage and blindness.

Skin: Corrosive. Rapidly causes pain, burns, redness, swelling and damage to tissue. Not likely to be absorbed in toxic amounts.

Ingestion: Corrosive. Causes pain and severe burns to mouth, throat and stomach.

Inhalation: Corrosive. Short exposure can injure lungs, throat, mucous membranes and reduce lung capacity. Causes pain, burns, choking, and coughing.

TARGET ORGAN S:

May cause changes in liver and pulmonary blood vessels. Prolonged exposure at low concentration may cause erosion of the teeth.

GENERAL COMMENTS:

Carcinogens: Not listed by IARC, USA NTP, or USA OSHA .

COMMENTS:

Only selected Registry of Toxic Effects of Chemical Substances (RTECS) data is presented in this document. See the actual entry in RTECS for complete information.

RTECS Number: MW400000

12. ECOLOGICAL INFORMATION

GENERAL COMMENTS:

Degradability: Not biodegradable.

Fish Toxicity: Low toxicity to fish (when neutralized) .

13. DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL:

Ship via permitted waste hauler to permitted hazardous waste disposal facility for solidification and landfilling (preferred) or disposal well injection. Neutralized material may be acceptable in sanitary sewers; check local regulations.

EMPTY CONTAINER:

Leave label on drum and sell drum to an approved drum reconditioner or triple rinse with an appropriate solvent, crush, and ship to sanitary landfill unless prohibited by local regulations.

RCRA/USEPA WASTE INFORMATION:

RCRA Hazardous Waste Number: D002 (corrosive)

COMMENTS:

Always follow ALL applicable federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

Proper Shipping Name: Hydrochloric acid, solution
Hazard Class: 8
NA/UN Number: UN1789
Packing Group: II
Reportable Quantity (RQ) Under CERCLA: 1900 gal
Placards: Corrosive
Label: Corrosive - 8

SPECIAL SHIPPING NOTES:

Material is a HAZARDOUS MATERIAL AND HAZARDOUS SUBSTANCE. Add the letters RQ to the beginning of the shipping description if RQ is exceeded in a single container.

15. REGULATORY INFORMATION

DOT Label Symbol and Statement of Hazard



DOT Corrosive



UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

Fire: No Pressure Generating: No Reactivity: No Acute: Yes Chronic: Yes

313 Reportable Ingredients: Hydrochloric acid (28%)

Title III Notes: This product contains substances which are defined as toxic chemicals under the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (40 CFR Part 372).

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Reportable Spill Quantity: 1900 gal

EPA

EPA RQ Ingredient: Hydrogen Chloride

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA Status: All components of this material are on the TSCA inventory.

STATE REGULATIONS

PROPOSITION 65 STATEMENT:

This product does not contain any substance(s) which are defined by the state of California to cause cancer, birth defects, or other reproductive effects.

16. OTHER INFORMATION

REASON FOR ISSUE:

Biannual review

Approved by: Charles M. Maddin, PhD, FAIC

Approval date: 10/08/1999

REVISION SUMMARY

Revision #: 3

This MSDS replaces the October 14, 1998 MSDS. Any changes in information are as follows:

In Section 16

Reason for Issue

In Section 12

Ecological Comments

In Section 14

DOT Packing Group

In Section 15

Chronic



NFPA CODES

Fire: 0 Health: 3 Reactivity: 1

HMIS CODES

Fire: 0 Health: 3 Reactivity: 1

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