

Thatcher Company Material Safety Data Sheet
Product: Hydrochloric Acid, (20%Baum)

MSDS Date: February 28, 2000
Emergency Contact: 1-800-424-9300

SECTION I

PRODUCT NAME: Hydrochloric Acid, (20° Baume)
SYNONYMS: Muriatic Acid

CHEMICAL NAME: Hydrochloric acid
CHEMICAL FAMILY: Inorganic acids

DOT SHIPPING INFORMATION: Hydrochloric Acid Solution
8, UN 1789, PG II

SECTION II - HAZARDOUS INGREDIENTS

This material contains no ingredients which are known by Thatcher Company to be hazardous unless listed below.

HAZARDOUS MATERIAL	CAS NUMBER	w/w %	EXPOSURE LIMITS IN AIR
Hydrochloric acid	7647-01-0	31.45	TLV = 5 ppm (7 mg/m3)(ACGIH)

The specific identity of some ingredients may be withheld for confidential business purposes. However, all known potential health effects from exposure to these ingredients are being addressed.

Hydrochloric acid is subject to the reporting requirements of EPCRA Section 313 (40 CFR Part 372)

SECTION III - PHYSICAL DATA

BOILING POINT (F): 182 **SPECIFIC GRAVITY:** 1.16
VAPOR PRESSURE (mm Hg): Unknown **% VOLATILE, BY VOLUME:** 100%
VAPOR DENSITY (air=1): 1.268 **EVAPORATION RATE:** Similar to water
SOLUBILITY IN WATER: Complete **APPEARANCE AND ODOR:** Clear, colorless to slightly yellow liquid with a pungent odor.

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT: Nonflammable
FLAMMABLE LIMITS:
Lel: N/A Uel: N/A
EXTINGUISHING MEDIA:
Water spray, dry chemicals, foam or carbon dioxide.
SPECIAL FIRE-FIGHTING PROCEDURES:
When heated, hydrochloric acid releases hydrogen chloride gas. Use a self-contained respirator if heating occurs.
UNUSUAL FIRE-FIGHTING AND EXPLOSION HAZARDS:
Hydrochloric acid reacts with steel and many common metals to produce hydrogen gas, which is highly flammable and a fire and explosion hazard.

SECTION V - REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS OR MATERIALS TO AVOID:

Avoid contact with metals and sulfides. Contact with metals produces flammable or explosive hydrogen.

Contact with metals releases poisonous hydrogen sulfide gas. Avoid contact with bases or any other chemicals.

HAZARDOUS DECOMPOSITION PRODUCTS:

Hydrochloric acid is stable; however, highly corrosive hydrogen chloride gas and hydrochloric acid vapor is released at above boiling temperatures.

SECTION VI - HEALTH HAZARD DATA

CARCINOGENIC LISTING:

NTP: No ingredients listed in this section.

IARC MONOGRAPHS: No ingredients listed in this section.

OSHA 29 CFR 1910: No ingredients listed in this section.

ENTRY ROUTES & EFFECTS OF OVEREXPOSURE:

Contact: Can cause severe burns to eyes, skin and mucous membranes.

Inhalation: Vapor can cause severe irritation or burns to respiratory tract.

Ingestion: Can cause severe burns to the gastrointestinal system, which could result in death.

STATEMENT OF PRACTICAL TREATMENT:

Contact: *Immediately* flush exposed area thoroughly with water for at least 15 minutes while removing contaminated clothing and shoes. Consult a physician. *For eyes*, flush with large amounts of cool water for at least 15 minutes. Get medical attention immediately.

Inhalation: Remove to fresh air. If not breathing, begin artificial respiration. If breathing is difficult, give oxygen. Get medical attention *immediately*.

Ingestion: If swallowed, **do not** induce vomiting. Give several glasses of water or milk. If vomiting occurs spontaneously, keep airway clear. Get medical attention *immediately*.

SECTION VII - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

Keep container tightly closed. Store in a cool, dry area protected from corrosion, Store away from other chemicals such as oxidizing agents, bases or metals.

STEPS TO BE TAKEN IF MATERIAL SPILLS OR LEAKS:

Evacuate area. Wear proper safety gear. For small spills, neutralize with soda ash and, if permitted, flush to sewer with large amounts of water. For larger spills, dike the liquid and recover as much as possible into polyethylene drums. Neutralize residue with soda ash and flush to sewer with large amounts of water, if permitted. Comply with applicable government regulations.

WASTE DISPOSAL METHOD:

Hydrochloric acid is an EPA hazardous waste due to corrosivity and must be disposed of by an EPA approved hazardous waste facility. Comply with all local, state and federal regulations.

SECTION VII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

Self-contained organic respirator should be available.

VENTILATION:

Use ventilation to maintain TLV below 5 ppm.

EYE PROTECTION:

Full face shield, chemical goggles.

SKIN PROTECTION:

Acid suit, rubber boots, impervious gloves.

OTHER PROTECTIVE EQUIPMENT:

As needed to avoid all bodily contact and breathing of vapor.

ACGIH = American Conference of Government Industrial Hygienist

CL = Ceiling Level

IARC = International Agency for Research on Cancer: Monographs

OSHA = Occupational Safety and Health Administration

N/A = Not Applicable

NTP = National Toxicology Program: Annual Report on Carcinogens

PEL = Permissible Exposure Level (OSHA)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average over 8 Hours

STEL = Short Term Exposure Limit (ACGIH)
ND - Not Determined

This information is, to the best of our knowledge, accurate but may not be complete. THATCHER COMPANY furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness, or reliability.