



H3880 -02 Hydrochloric Acid
Effective: 08/07/86
Page: 3
Issued: 07/27/88

SECTION V - HEALTH HAZARD DATA (Continued)

LD₅₀ (lpr-mouse) (mg/kg) - 40
LC₅₀ (inh-rat-1H) (ppm) - 3124

Carcinogenicity: NTP: No IARC: No 2 List: No OSHA reg: No

Effects of Overexposure

Inhalation of vapors may cause pulmonary edema, circulatory system collapse, damage to upper respiratory system, collapse.
Inhalation of vapors may cause coughing and difficult breathing.
Liquid may cause severe burns to skin and eyes.
Ingestion is harmful and may be fatal.
Ingestion may cause severe burns of mouth, throat, and stomach.
Ingestion may cause nausea and vomiting.

Target Organs

respiratory system, eyes, skin

Usual Conditions Generally Avoided By Exposure

None Identified

Routes of Entry

ingestion, inhalation, skin contact, eye contact

Emergency and First Aid Procedures

ORAL A PHYSICIAN

If swallowed, do NOT induce vomiting; if conscious, give water, milk, or milk of magnesia.
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Wash clothing before re-use.

SECTION VI - REACTIVITY DATA

Stability: Stable

Hazardous Polymerizations: Will not occur

Conditions to Avoid:

heat, moisture

Incompatibilities:

most common metals, water, amines, metal oxides, acetic anhydride, propylacetone, vinyl acetate, mercuric sulfate, calcium phosphide, formaldehyde, aldehydes, carbonates, strong bases, sulfuric acid, chlorosulfonic acid

Decomposition Products: hydrogen chloride, hydrogen, chlorine

Continued on Page: 4

0047

H3880 -02 Hydrochloric Acid
Effective: 08/07/86
Page: 4
Issued: 07/27/88

SECTION VII - SPILL AND DISPOSAL PROCEDURES

Spills to be taken in the event of a spill or discharge.
Wear self-contained breathing apparatus and full protective clothing.
Leak if you can do so without risk. Unilate area. Neutralize spill with soda ash or lime. With clean shovel, carefully place material into clear dry container and cover; remove from area. Flush spill area with water.

J. T. Baker NEUTROSORB® or TERN® "Low Na+" acid neutralizers are recommended for spills of this product.

Disposal Procedure

Dispose in accordance with all applicable federal, state, and local environmental regulations.

EPA Hazardous Waste Number: D002 (Corrosive Waste)

SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

Ventilation:

Use general or local exhaust ventilation to meet TLV requirements.

Respiratory Protection:

Respiratory protection required if airborne concentration exceeds TLV. At concentrations up to 100 ppm, a chemical cartridge respirator with acid cartridge is recommended. Above this level, a self-contained breathing apparatus is advised.

Eye/Skin Protection:

Safety goggles and face shield, uniform, protective suit, neoprene gloves are recommended.

SECTION IX - STORAGE AND HANDLING PRECAUTIONS

SAF-T-T-UNIT Storage Color Code: White (corrosive)

Special Precautions

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

SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

Proper Shipping Name: Hydrochloric acid
Hazard Glass: Corrosive material (liquid)
UN1789
Label: CORROSIVE
Reportable Quantity: 5000 LBS.

Continued on Page: 5

0047

H3880 -02 Hydrochloric Acid
Effective: 08/07/86
Page: 1
Issued: 07/27/88

SECTION I - PRODUCT IDENTIFICATION

Product Name: Hydrochloric Acid
Formula: HCl
CAS No.: 7647-01-0
HIO3H/RTCS No.: 1001025000
Common Synonyms: Hydrochloric Acid; Chlorohydric Acid; Hydrogen Chloride; Aqueous
Product Codes: 9530, 9536, 5532, 9529, 9543, 4800, 9538, 9547, 5367, 9535, 9549, 9548
9537, 9544, 9540, 9534, 9542

PRECAUTIONARY LABELLING

EMERGENCY SOP-T-0001 System

HEALTH FLAMMABILITY REACTIVITY CORROSIVITY
2 0 2 3
SEVERE NONE MODERATE HAZARDOUS

Laboratory Protective Equipment

RESPIRATOR GLOVES GOGGLES APRON
WASH EYES & SKIN IMMEDIATELY

Precautionary Label Statements

POISON! DANGER!
CAUSES SEVERE BURNS
MAY BE FATAL IF SWALLOWED OR INHALED
Do not get in eyes, on skin, on clothing.
Causes damage to Respiratory system (lungs), eyes and skin. Keep in tightly closed container. Loosen closure cautiously. Use with adequate ventilation. Wash thoroughly after handling. In case of spill, neutralize with soda ash or lime and place in dry container.

SAF-T-DATA Storage Color Code: White (corrosive)

SECTION II - HAZARDOUS COMPONENTS

Component	COS No.
Hydrochloric Acid (23° Baume)	35-40 7647-01-0

Continued on Page: 2

0047

H3880 -02 Hydrochloric Acid
Effective: 08/07/86
Page: 2
Issued: 07/27/88

SECTION II - HAZARDOUS COMPONENTS (Continued)

Water
SECTION III - PHYSICAL DATA
Boiling Point: 110°C (230°F)
Melting Point: -25°C (-13°F)
Specific Gravity: 1.19
(H₂O=1)
Evaporation Rate: N/A
(Butyl Acetate=1)

Solubility(H₂O): Complete (in all proportions) % Volatiles by Volume: 10

Appearance & Odor: Clear, colorless or yellow, fuming liquid. Pungent odor.

Flash Point: N/A
NFPA 704M Rating: 3-0-0

Flammable Limits: Upper - N/A % Lower - N/A %
Fire Extinguishing Media
Use extinguishing media appropriate for surrounding fire.

Special Fire-Fighting Procedures

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode to keep fire-exposed containers cool. Do not get water inside containers.

Unusual Fire & Explosion Hazards

May emit hydrogen gas upon contact with metal.

Toxic Gases Produced

hydrogen chloride, hydrogen gas

SECTION III - HEALTH HAZARD DATA

The TLV (Ceiling), PEL (Ceiling), and toxicity test results listed are for Hydrogen Chloride. There is no STEL value established for this product.

Threshold Limit Value (TLV/TWA): 7 mg/m³ (5 ppm)

Permissible Exposure Limit (PEL): 7 mg/m³ (5 ppm)

Toxicity: LD₅₀ (oral-rabbit) (mg/kg) - 900

Continued on Page: 3

0047

H3880 -02
Effective: 08/02/86

Hydrochloric Acid

Page: 5
Issued: 07/27/88

SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION (Continued)

INTERNATIONAL (I.C.O.)

Proper Shipping Name	Hydrochloric acid, solution
Hazard Class	8
UN/NA	UN1789
Labels	CORROSIVE
W/P - Not Applicable or Not Available	

The information published in this Material Safety Data Sheet has been compiled from our experience and data presented in various technical publications. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. We reserve the right to revise Material Safety Data Sheets periodically as new information becomes available. J. T. Baker Inc. makes no warranty or representation about the accuracy or completeness nor fitness for purpose of the information contained herein.

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