

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Hydrochloric Acid, Concentrated, ACS
Product code: 3381

Supplier: Astral Diagnostics Inc.
1224 Forest Parkway, Suite 200
West Deptford, NJ 08066
800-441-0366 Technical Service
Monday-Friday: 8:00 -5:00 PM

Synonym: None.
Material uses: Laboratory Reagent.
Validation date: 12/11/2013
In case of emergency: 800-424-9300 CHEMTREC (USA)
24 Hours/Day: 7 Days/Week

2. HAZARDS IDENTIFICATION

GHS Classification

Skin Corrosion (Category 1A), H314
Serious Eye Damage (Category 1), H318

H314 Cause severe skin and eye damage
H318 Causes serious eye damage

GHS Label Elements



Pictogram

Signal Word Danger!

Health Statement(s):

H318: Causes serious eye damage (Cat 1)

H314: Causes severe skin burns and eye damage (Cat 1)

H370: Causes damage to organs (Cat 1)

H305: May be harmful if swallowed and enters airways (Cat 2)

Precautionary statement(s):

P280: Wear protective gloves/ eye protection/ face protection.

P305+351+338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Potential Acute Health Effects:

Very hazardous in case of contact with eye, skin, ingestion and inhalation. Liquid or spray mist may produce tissue damage especially mucous membranes of eyes, mouth and respiratory tract. Will burn eyes and skin on contact. Respiratory track characterized by coughing, choking and shortness of breath. Inflammation of eyes results in redness, watering and itching. Skin contact results in scaling, redness or blistering.

Potential Chronic Health Effects:

Carcinogenic Effects, NA; Mutagenic Effects, NA; Teratogenic Effects, NA; Developmental Toxicity, NA. May be toxic to kidneys, liver, mucous membranes, respiratory tract, skin and teeth.

Target Organs

Respiratory Tract

NFPA Rating

Health hazard: 3

Fire: 0

Reactivity Hazard: 1

HMIS Classification

Health hazard: 3

Flammability: 0

Physical hazards: 1

3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS number	% by volume
Hydrochloric Acid	7647-01-0	~ 38
Water	7732-18-5	~ 62

4. FIRST AID MEASURES

- Eye contact:** Check for and remove any contact lenses. Immediately flush eyes with water for 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact:** Flush skin with water for 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion:** Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Flammability of the product: Non-Flammable

Extinguishing media: Use suitable media for surrounding materials. If water use fog spray, avoid direct stream.

Special exposure hazards: Avoid contact with metal, hydrogen chloride gas can react with aluminum, tin, lead, zinc

Decomposition products: Decomposition products: hydrogen gas, hydrogen chloride gas

Special protective

equipment for fire-fighters: Use self-contained breathing apparatus with water spray.

Explosion hazards: hydrogen gas can form in fire situation which is flammable.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Keep unnecessary and unprotected personnel from entering area. Avoid breathing vapors. Provide adequate ventilation. Do not touch or walk through spilled material. Beware of vapors accumulating to form explosive hydrogen gas mixtures. Full personal safety equipment (suit gloves, respirator, face shield) required.

Environmental precautions: Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Contain spill area.

Spill: Corrosive liquid! Ventilate area. Prevent runoff. Contain and collect spillage with absorbent material e.g. sand, earth, vermiculite etc and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Dilute

with water and mop-up or absorb with an inert dry material and place in an appropriate waste disposal container. Avoid contact with strong oxidizers.

7. HANDLING AND STORAGE

- Handling:** Avoid breathing vapors or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store in ventilated areas.
- Storage:** Store in a well-ventilated, cool area for corrosive liquids. Keep container tightly closed and sealed until ready for use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits:

ACGIH TLV: TWA, 5 ppm, STEL1ppm

OSHA PEL: TWA: 5 ppm, STEL1ppm

NIOSH REL: TWA: 5 ppm, STEL1ppm

Carcinogenicity: NA

Engineering measures: Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne concentrations below any recommended threshold limits. Full safety shower should be in close proximity to working area.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating and using the lavatory. Wash contaminated clothing before reusing.

Personal protection

Respiratory: If used in poorly ventilated areas, use a properly fitted, air-purifying or air-fed respirator complying with an approved standard. Respirator selection must be based on known or anticipated exposure levels.

Hands: Chemical-resistant neoprene gloves

Eyes: Safety eyewear; splash goggles, face shield

Skin: Lab coats for personal protective equipment and should be approved by a specialist before handling this product. Depending on volume/conditions a full acid suit may be necessary.

Environmental exposure

controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.	Color:	Clear, slight yellow tint
Flash Point:	NA	Odor:	Pungent, strong, chlorine
pH:	~1	Boiling/condensation point:	NA
Melting/freezing point:	NA	Relative density:	1.19
Vapor pressure:	160mm Hg@20°C	Vapor density: Air=1	1.267
Odor threshold:	NA	Evaporation rate: BuAc=1	2.0
VOC:	NA		
Solubility:	Soluble in the following materials: water		

10. STABILITY AND REACTIVITY

Chemical stability: The product is stable under normal conditions.

Possibility of hazardous Very Corrosive

reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Hazardous polymerization: Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid: Reaction with water is exothermic
Materials to avoid: Reactive or incompatible with: oxidizing materials, metals and alkaline materials
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not occur. Explosive hydrogen chloride/gas may form if decomposition occurs.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50-Rabbit 900mg/kg

Inhalation LC50, Mouse 1hr - 1108ppm; Rat 1hr, 3124ppm

Other information on acute toxicity

no data available

Skin corrosion/irritation

Corrosive through skin absorption

Serious eye damage/eye irritation

Eyes: very corrosive

Respiratory or skin sensitization

Dryness, reddening, blistering

Germ cell mutagenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

Liver, respiratory/gastro tract, eyes and skin

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

Liver, respiratory/gastro tract, eyes, skin and general overall organs

Aspiration hazard

Will burn mouth, throat and respiratory tract

Potential health effects

Inhalation May be toxic if inhaled. Causes respiratory tract inflammation/burns.

Ingestion May be toxic if swallowed and causes burns/tissue destruction.

Skin Toxic if absorbed through skin. Causes skin irritation/blisters.

Eyes Will burn eyes on contact.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Toxicity

LC50, fish 282mg/L 96 hr

Persistence and degradability

Expected to be biodegradable

Bioaccumulative potential

no data available

Mobility in soil

Product absorbs weakly to most soil types

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and

disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT (US) UN 1789, Hydrochloric acid, 8, II

IMDG UN 2789, UN 1789, Hydrochloric acid, 8, II

IATA UN 2789, UN 1789, Hydrochloric acid, 8, II

15. REGULATORY INFORMATION

TSCA 8 (b): Listed on inventory

SARA 302/311/312/313/: Extremely hazardous material; RQ5000lbs, TPQ500lbs gas

OSHA Hazardous by definition (29CFR 1910.1200)

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances

WHMIS (Canada): Class D-2A Material causing other toxic effects; Class E: Corrosive liquid

DEA List I Chemicals

Precursor Chemicals): Not listed

DEA List II Chemicals

Essential Chemicals):

RTK: Hydrochloric Acid Concentrated, CAS 7647-01-0, Listed, CA, CT, FL, MA, MN, NJ, PA, RI

California Prop 65 Components: No components listed for causing cancer, birth defects or any reproductive harm.

16. OTHER INFORMATION

National Fire Protection Association (U.S.A.)



Notice to reader

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astral Diagnostics, Inc shall not be liable for any damage resulting from handling of contact with this product.