1. PRODUCT AND COMPANY IDENTIFICATION

Product Code:
Product Name: Hydrochloric Acid

Company Name: Gas Innovations
18005 E. Hwy 225
La Porte, TX 77571

Web site address: www.gasinnovations.com
Phone Number: +1 (281)471-2200

Emergency Contact: 3E (within United States) +1 (866)303-2640
Information: Infotrac (outside of United States) +1 (352)323-3500

2. HAZARDS IDENTIFICATION

Flammable Gases: **Category 1**

Symbol:

GHS Signal Word: **Danger**

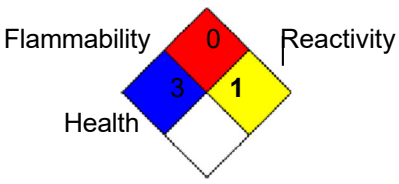
GHS Hazard Phrases:
H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.

GHS Precaution Phrases:
P234 - Keep only in original container.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases:
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P304+P340 - IF INHALED: Remove the person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor/physician.
P363 - Wash contaminated clothing before reusing.
P390 - Absorb spillage to prevent material-damage.

GHS Storage and Disposal Phrases:
P403+P233 - Store in a well-ventilated place. Keep the container tightly closed.
P405 - Store locked up.
P406 - Store in corrosive resistant container with a resistant liner.
P501 - Dispose of contents/container in accordance with local regulations.

Hazard Rating System:



NFPA: Special Hazard

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
7647-01-0	Hydrogen Chloride	14 – 40 %
7732-18-5	Water	60 – 86%

4. FIRST AID MEASURES

In Case of Inhalation: Move to fresh air. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately

In Case of Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reusing. Thoroughly clean shoes before reusing them. Get medical attention immediately.

In Case of Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

In Case of Ingestion: DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water.

Fire Fighting Instructions: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Structural firefighter's protective clothing is ineffective for fires involving hydrochloric acid. Stay away from ends of tanks. Cool tanks with water spray until well after fire is out.

Flammable Properties and Hazards: Emits toxic (hydrogen chloride gas) fumes under fire conditions. (See also the Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Protective Precautions, Protective Equipment and Emergency Procedures: See section 8 for recommendations on the use of personal protective equipment.

Environmental Precautions: Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.

Steps To Be Taken in Case Material Is Released or Spilled: Ventilate area of leak or spill. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Neutralize with alkaline material (soda ash, lime) then absorb with an inert material (e. g. vermiculite, dry sand, earth) and place in a chemical waste container. Do not use combustible materials, such as saw dust.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling: Use with adequate ventilation. Wash thoroughly after using it. Keep the container closed when not in use. Avoid the formation of aerosols.

Precautions To Be Taken in Storing: Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Protect from physical damage. Keep out of direct sunlight and away from heat, water, and incompatible materials. Do not wash out the container and use it for other purposes. When diluting, the acid should always be added slowly to water and in small amounts. Never use hot water and never add water to the acid. Water added to acid can cause uncontrolled boiling and splashing. When opening metal containers, use non-sparking tools because of the possibility of hydrogen gas being present. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7647-01-0	Hydrochloric Acid	5 ppm	2 ppm	NIOSH: 5ppm

Respiratory Equipment (Specify Type): If the exposure limit is exceeded, a full facepiece respirator with an acid gas cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.

Eye Protection: Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-faced respirator, if needed. Maintain eye wash fountain and quick-drench facilities in work area.

Skin protection & Hand protection: Rubber or neoprene gloves and additional protection including impervious boots, aprons, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Engineering Controls (Ventilation etc.): A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States:	[ ] Gas [X] Liquid [ ] Solid
Appearance and Odor:	Colorless & Pungent odor.
Melting Point:	-74°C (-101°F)
Boiling Point:	50.5°C (122.9°F)
Flash Pt:	Not flammable
Explosive Limits:	Not Explosive
Specific Gravity (Water = 1):	1.18
Vapor Pressure (vs. Air or mm Hg):	170 mmHg at 21.1°C
Vapor Density(air=1)	1.267
Evaporation Rate:	NA
Solubility in Water:	Soluble
Saturated Vapor Concentration:	NA
Viscosity:	NA
pH:	Acidic
Percent Volatile	100
Molecular Formula:	HCl
Molecular Weight:	36.46 g/mol

10. STABILITY AND REACTIVITY

Stability: Unstable [ ] Stable [X]

Conditions To Avoid - Instability: Uncontrolled additions of water.

Incompatibility Materials to Avoid: A strong mineral acid, concentrated hydrochloric acid is incompatible with many substances and highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and formaldehyde.

Hazardous Decomposition or Byproducts: When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

Possibility of Hazardous Reactions: Will occur [ ] Will not occur [X]

Conditions To Avoid - Hazardous Heat, direct sunlight.

Reactions:

11. TOXICOLOGICAL INFORMATION

Ingestion:	No data available
Skin Contact:	Irritation and burns.
Eye Contact:	Severe eye irritation, conjunctivitis, burns, corneal necrosis.
Toxicological Effect Acute Toxicity Oral Product:	No data available
Dermal Product:	No data available
Inhalation Product:	No data available
Repeated dose toxicity Product:	No data available
Skin corrosion/irritation Product:	No data available
Serious eye damage/eye Product:	No data available
Respiratory or skin sensitization Product:	No data available
Serious eye damage/eye Product:	No data available
Mutagenicity	May alter genetic material.
In vitro Product:	No data available
In vivo Product:	No data available
Carcinogenicity Product:	No data available
Reproductive toxicity Product:	No data available
Specified target organ toxicity- single exposure Product:	Kidneys, liver, mucous membranes, upper respiratory tract, skin, eyes, circulatory system, teeth.
Aspiration hazard Product:	No data available

12. ECOLOGICAL INFORMATION

Aquatic Vertebrates:	LC50 – Gambusia affine – 282 mg/L – 96h
Aquatic invertebrates Product:	Not Available
Persistence and degradability	Not Available
bioaccumulate potential Product:	Not Available
Mobility in soil:	Not Available
Results of PBT and vPvB assessment:	Not Available
Other adverse effects	Not Available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of containers and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping name:	HYDROCHLORIC ACID
DOT Hazard Class:	8
UN/NA number:	UN1789

Sea Transport:

Transport document description (IMDG):	HYDROCHLORIC ACID
UN-No. (IMDG):	UN1789
Class:	8

15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7647-01-0	Hydrochloric Acid	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
7647-01-0	Hydrochloric Acid	TSCA: Yes; EC: Yes;

CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
7647-01-0	Hydrochloric Acid	Australia ICS: Yes; Japan ENCS: Yes; Korea: Yes; Philippines: Yes;

16.OTHER INFORMATION

Revision Date: 10/10/2024

Revision Information: No data available

NFPA Ratings:
0= Minimal Hazard
1= Slight Hazard
2= Moderate Hazard
3= Serious Hazard
4= Severe Hazard

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