



Safety Data Sheet

Better Chemistry. Better Business

AQUAPURE™ I-300

Revised: 12/2/24

1 IDENTIFICATION

Product Name: AQUAPURE™ I-300

Product Code :2601063

Recommended use of the chemical and restrictions on use:Industrial Wastewater Treatment

Hubbard-Hall Inc.

563 South Leonard Street
Waterbury, CT 06708

Telephone: 203-756-5521

Fax number: 203-756-9017

Emergency Phone Number

CHEMTREC: 1 (800) 424-9300

International: 1 (703) 527-3887

2 HAZARDS IDENTIFICATION



Signal Word: DANGER

Hazard Category: Acute Toxicity-Oral Hazard Category 4

Eye Damage/Irritation Hazard Category 1

Skin Corrosion/Irritation Hazard Category 1A

Sensitization-Skin Hazard Category 1B

Corrosive to Metals Hazard Category 1

Acute Aquatic Toxicity-Category 2

Hazard Statements: Harmful if swallowed.

Causes severe skin burns and eye damage.

May be corrosive to metals.

May cause an allergic skin reaction.

Toxic to aquatic life

Prevention: Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Avoid breathing dust, fumes, gas, mist, vapors and sprays.

Wear rubber gloves, goggles and chemical protective clothing.

Contaminated work clothing must not be allowed out of the workplace.

Keep only in original container.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing before reuse.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call poison center/doctor if you feel unwell.

Immediately call poison center or doctor and explain the type of exposure to the chemical(s) and provide the name of the chemical(s).

Specific treatment - refer to poison center or doctor for advice.

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

Absorb spillage to prevent material damage.

If skin irritation or rash occurs, get medical advice/attention.

Storage: Store locked up.

Store in corrosive resistant high density polyethylene container.

Store in well ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container in accordance with local, regional, national, or international regulations.

3 COMPOSITION INFORMATION

Chemical Name	Common Name And Synonyms	CAS No. and other Unique identifiers	Concentration %
Hydrogen Chloride	Hydrochloric Acid Aqueous	7647-01-0	1-5%
Iron Dichloride	Ferrous Chloride	7758-94-3	10-35%
Calcium Chloride	+	10043-52-4	~4%

4 FIRST AID

After Inhalation:

Remove from contaminated atmosphere. If breathing has ceased, clear the victim's airway and start mouth-to-mouth artificial respiration, which may be supplemented by the use of a bag-mask respirator, or manually triggered, oxygen supply capable of delivering 1 liter/second or more. If the victim is breathing, oxygen may be administered from a demand-type or continuous flow inhalor, preferably with a physician's advice. Contact a physician immediately.

After Skin Contact:

Immediately remove contaminated clothing under a safety shower. Flush all affected areas with large amounts of water for 15 minutes. DO NOT attempt to neutralize with chemical agents. Obtain medical advice.

After Eye Contact:

Immediately flush the eyes with large quantities of running water for 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyelids with water. DO NOT attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used. Continue rinsing for an additional 15 minutes if the physician is not available.

After Ingestion:

DO NOT induce vomiting. Immediately give large quantities of water or milk, if available. If vomiting does occur, give fluids again. Never give anything by mouth to an unconscious person. Call a physician or the nearest Poison Control Center.

Most Important Symptoms/Effects

Inhalation:

Inhalation of dust may irritate nose, throat and/or lungs.

Eye:

Severe eye and or skin irritation or burns.

Skin:

Causes severe skin burns

Skin:

May cause an allergic skin reaction.

Ingestion:

Ingestion: May cause irritation and burning of the lips, mouth and throat,

Delayed:

Will aggravate breathing disorders.

5 FIRE FIGHTING MEASURES

Suitable and Unsuitable extinguishing media:

If involved in a fire, use water spray. Neutralize with soda ash or slaked lime.

Specific hazards arising from the chemical:

This product may release flammable hydrogen gas on contact with metal, which may significantly contribute to the risk of fire and explosion.

Special protective equipment and precautions for firefighter

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 this material. Stay away from ends of tanks. Cool tanks with water spray until well after fire is out.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, & Emergency Proc

Prevent spilled product from drains, sewers, waterways and soil.

Methods and Materials for containment & cleaning up:

Neutralize spill with soda ash or lime under good ventilation. For an interior (inside a closed space) spill be aware that the use of Soda Ash, Lime will evolve heat and carbon dioxide thus the need for ventilation.

If trained in accordance 29 CFR 1910.120, leaks should be stopped. Spills should be contained and cleaned immediately. Persons performing clean up work should wear adequate personal protective equipment and clothing. Spills and releases should be reported, if required, to the appropriate local, state and federal regulatory agencies.

Absorb the chemical onto sand, vermiculite, or any other non-combustible absorbent, and collect into containers for later disposal.

7 HANDLING AND STORAGE

Precautions for safe handling:

Use in well ventilated area.

Avoid breathing dust, fumes, gas, mist, vapors and sprays.

Wear rubber gloves, eye protection, and chemical protective clothing.

Keep only in original container .

Wash hands thoroughly after handling.

Do not get in eyes, or on skin, or on clothing.

Conditions for safe storage, inc any incompatibilities:

Store locked up

Store locked up and away from incompatible chemicals.

Store in a well ventilated place. Keep cool .

Store in corrosive resistant container.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std.	TWA-8hrs	STEL - 15 min.
Hydrochloric Acid	ACGIH	2 ppm	-
Iron Dichloride	ACGIH	1 mg/m ³ as Fe	-
Particulates Not Otherwise Specified	OSHA PEL	15 mg/m ³ (total) 5mg/m ³ (respirable)	-

ACGIH - American Control of Governmental Hygienists

OSHA - Occupational Safety and Health Administration

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark amber to greenish liquid
Odor:	acidic
Odor Threshold:	N/A
PH:	<1.5 Acidic, in solution
Melting Point/Freezing Point:	-58 °F
Initial Boiling Point and Boiling Range:	228 °F
Evaporation Rate:	N/A
Flammability (solid, gas):	NON-FLAMMABLE
Upper/Lower flammability or explosive limits:	non-flammable
Vapor Pressure:	NA
Relative Density:	1.347
Solubility (ies):	100%
Partition Coefficient; n-octanol/water:	NA
Auto-ignition Temperature:	N/A
Decomposition Temperature:	NA
Viscosity:	NA

10 STABILITY AND REACTIVITY

Chemical Stability:	Stable
Conditions to Avoid:	Extremely reactive. Avoid contact with metal surfaces and oxidizing agents.
Incompatible Materials:	Chemically stable when properly contained and handled. It is a strong mineral acid and reacts with many metals and metal oxides and hydroxides to form equivalent metal chloride. It reacts with zeolites and other silicious compounds to form Hydrosilicic Acid ; it reacts with carbonates to form Carbon Dioxide and water. It is oxidized by Oxygen or electrolysis to form Chlorine, a lethal poisonous gas. It reacts with alkaline compounds to form neutral salt. It is a hydrolyzing agent for carbohydrates, esters and other compounds. It's reaction with most metals will produce Hydrogen, an explosive gas. Violent reactions will result with acetic anhydride, 2-aminoethanol, ammonia hydroxide, calcium phosphide, chlorosulfonic acid, ethylene diamine, ethylene imine, oleum, perchloric acid, beta propiolactone, propylene oxide, sodium hydroxide, uranium phosphide and vinyl acetate. This listing is not all inclusive.
Hazardous Decomposition Products:	Extreme heat may cause the product to decompose, producing toxic fumes which may include chlorine compounds.

11 TOXICOLOGICAL INFORMATION

Oral Administration:	Hydrochloric Acid-LD50:700 mg/kg (31.5%) rat
Oral Administration:	Iron Dichloride-LD50(Rat)-450 mg/kg
Oral Administration:	Calcium Chloride LD50(Rat)-1000 mg/kg
Inhalation:	Corrosive! Inhalation on vapors can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract, and in severe cases, pulmonary edema, circulatory failure, and death.
Dermal administration:	Hydrochloric Acid-LD50:>5010 mg/kg (31%) Rabbit
Dermal administration:	Calcium Chloride LD50(Rabbit)-5000 mg/kg
Short term exposure:	Hydrogen Chloride, both as a gas and in a solution such as Hydrochloric Acid, is a corrosive substance and can cause painful burns on contact with any part of the body or if taken internally. The mucous membranes of the eyes and upper respiratory tract are especially susceptible to the irritating effects of high atmospheric concentrations of Hydrogen Chloride. The gas or vapor is so penetrating and pungent that when high concentrations do occur, those exposed should immediately leave the contaminated area.
Long term exposure:	Long term exposure to concentrated vapors may cause erosion of the teeth. Long term exposure seldom due to corrosive properties of the acid.
Numerical measures of toxicity(such as toxicity measurement)	Hydrochloric Acid-Inhalation-LC50: 1.68mg/L, 1 h (rat) LC50: 4.72 mg/L, 1 h (rat)
Cancer Hazard:	Hydrochloric Acid-IARC Group 3 Not classifiable as to its carcinogenicity to humans, ACGIH-A4
Routes of Exposure	Eyes, Skin, Inhalation, Ingestion

12 ECOLOGICAL INFORMATION

Fish, Lepomis macrochirus,	Iron Chloride-Striped Bass(morone saxatilis)LC50-4 mg/L 96 hrs
Fish, Lepomis macrochirus,	Hydrochloric Acid Western Mosquitofish (Gambusia affinis)- LC 50 282 mg/L 96 hrs
Daphnia Magna,	Iron Dichloride-EC50-17 ug/L 48 h
Daphnia Magna,	Calcium Chloride -EC50-2400 mg/L 48 hr
Persistence and Degradability:	Not Available
Abiotic degradability:	No data available
Bioaccumulation potential:	No data available
Soil/Sediment Result:	Pronounced solubility and mobility

13 DISPOSAL CONSIDERATION

Dispose of in accordance with local, state and federal regulations.

14 TRANSPORT INFORMATION

UN Number:	1760
UN Proper Shipping Name:	CORROSIVE LIQUIDS, N.O.S. (FERROUS CHLORIDE SOLUTION),
Transport Hazard Class (es):	8
Packing Group:	III
ERG:	154

15 REGULATORY INFORMATION

HMIS: Health: 2 Flammability: 0 Reactivity: 1

Cercla	Hydrochloric Acid-RQ-5000 lbs
Cercla	Ferrous Chloride-RQ=100 lbs
Sara Hazard Classification	SARA 302 - Extremely Hazardous Substances; Hydrochloric Acid
Proposition 65	No Proposition 65 listed components in this formula

**TSCA Inventory
Status**

All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements .

16 OTHER INFORMATION

REACH status

No **RoHS** or **REACH SVHC** are contained in this product.

Disclaimer:

The information is based on our knowledge to date but does not constitute an assurance of product properties and does not imply a legal contractual relationship.