



SAFETY DATA SHEET

Version 2

1. Identification of the Substance / Preparation and of the Company / Undertaking

Product Name: Hydrochloric Acid 20'
UN/ID No UN1789
Synonyms: Muriatic Acid
Formula: HCl
Molecular Weight: 36.46

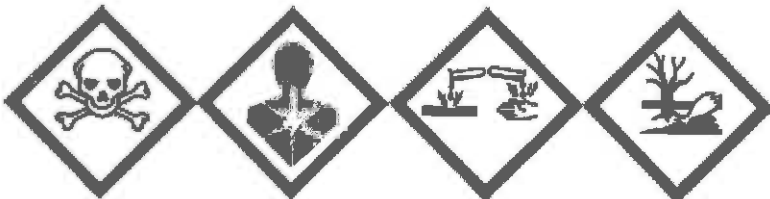
Company Name:
 Hawkins, Inc., 2381 Rosegate, Roseville, MN 55113 (612-331-6910)

Emergency Telephone:
 CHEMTREC (US): 1-800-424-9300

2. Hazards Identification

GHS - Classification

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Gases)	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 1
Skin corrosion/irritation	Category 1 Category 1A
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	Category 1A
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1
Acute aquatic toxicity	Category 1



Signal Word: Danger

Hazard Statements:

- Toxic if swallowed
- Fatal if inhaled
- Causes severe skin burns and eye damage
- May cause allergy or asthma symptoms or breathing difficulties if inhaled
- Causes damage to organs
- Causes damage to organs through prolonged or repeated exposure
- Very toxic to aquatic life

Physical Hazards

Corrosive to metals	Category 1
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935 Hydrochloric Acid 20'

- May be corrosive to metals



Precautionary Statements:

- P260 - Do not breathe dust/fume/gas/mist/vapors/spray
- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
- P264 - Wash face, hands and any exposed skin thoroughly after handling
- P270 - Do not eat, drink or smoke when using this product
- P271 - Use only outdoors or in a well-ventilated area
- P273 - Avoid release to the environment
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P284 - Wear respiratory protection
- P285 - In case of inadequate ventilation wear respiratory protection
- P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
- P310 - Immediately call a POISON CENTER or doctor/physician
- P311 - Call a POISON CENTER or doctor/physician
- P314 - Get medical advice/attention if you feel unwell
- P330 - Rinse mouth
- P334 - Immerse in cool water/wrap in wet bandages
- P363 - Wash contaminated clothing before reuse
- P390 - Absorb spillage to prevent material damage
- P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position 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
- P307 + P311 - IF exposed: Call a POISON CENTER or doctor/physician
- P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
- P405 - Store locked up
- P406 - Store in corrosive resistant aluminum container with a resistant inliner
- P501 - Dispose of contents/ container to an approved waste disposal plant
- P501 - Dispose of contents/container to industrial incineration plant

3. Composition / Information on Ingredients

Hazardous

Chemical Name	CAS No	Weight-%	EC No
Hydrochloric acid	7647-01-0	31-32	231-595-7

4. First Aid Measures

- General Advice:** Immediate medical attention is required.
- Eye Contact:** Keep eye wide open while rinsing. Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Do not rub affected area.
- Skin Contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

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Inhalation:	Move to fresh air. Call a physician or poison control center immediately. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
Ingestion:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Immediate medical attention is required. Call a physician or poison control center immediately. Clean mouth with water and drink afterwards plenty of water. Remove from exposure, lie down.
Note to Physicians:	Treat symptomatically. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.
Self-protection of the First Aider:	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

5. Fire-fighting Measures

Flammable Properties:

Not considered to be a fire hazard, Contact with metals may evolve flammable hydrogen gas

Explosive Properties:

Not considered to be an explosion hazard

Suitable Extinguishing Media:

Water spray (fog), Water, Neutralize with soda ash or slaked lime

Unsuitable Extinguishing Media:

No information available

Specific Hazards Arising from the Chemical:

The product causes burns of eyes, skin and mucous membranes, Thermal decomposition can lead to release of irritating and toxic gases and vapors, In the event of fire and/or explosion do not breathe fumes

Protective Equipment and Precautions for Firefighters:

In the event of a fire, wear full protective clothing and MSHA/NIOSH (approved or equivalent) self-contained breathing apparatus with full facepiece operated in the pressure-demand or other positive pressure mode, Cool containers with flooding quantities of water until well after fire is out, Stay away from ends of tanks, Structural firefighter's protective clothing is ineffective for fires involving this material

6. Accidental Release Measures

Personal Precautions:

Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains. Should not be released into the environment.

Methods for Containment:

Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal. Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up:

Dam up. Soak up with inert absorbent material. Clean contaminated surface thoroughly. After cleaning, flush away traces with water. Prevent product from entering drains. Take up mechanically, placing in appropriate containers for disposal. Dike far ahead of liquid spill for later disposal.

Other Information:

Not applicable.

7. Handling and Storage

935 Hydrochloric Acid 20'

Advice on Safe Handling: Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems. Use only with adequate ventilation.

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers. Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials: Strong acids and bases; Oxidizing agents; Amines; Metal oxides; Hydroxides; Carbonates; Cyanides; Sulfides; Metals; Sulfites; Formaldehyde; Alkali

8. Exposure Controls / Personal Protection

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWA			
Hydrochloric acid	Ceiling: 2 ppm	5 ppm Ceiling 5 ppm Ceiling 7 mg/m ³ Ceiling 7 mg/m ³ Ceiling	CEV: 2 ppm			
Chemical Name	European Union	China	Japan	Korea	Australia	Taiwan
Hydrochloric acid	TWA 5 ppm TWA 8 mg/m ³ STEL 10 ppm STEL 15 mg/m ³	Ceiling: 7.5 mg/m ³ Ceiling	Ceiling: 5 ppm Ceiling: 7.5 mg/m ³	STEL: 2 ppm STEL: 3 mg/m ³ TWA: 1 ppm TWA: 1.5 mg/m ³	5 ppm Peak 7.5 mg/m ³ Peak	

Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992)

Engineering Controls: Ensure adequate ventilation, especially in confined areas

Personal protective equipment (PPE)

Eye/Face Protection: Tight sealing safety goggles. Face protection shield.

Body Protection: Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate. Rubber boots. Suitable protective clothing. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Gloves made of plastic or rubber.

General Hygiene Considerations:

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Liquid
Appearance: Clear liquid
Color: Colorless
Odor: Pungent
Odor Threshold: No information available

Property	Values	Remarks • Method
pH:		No information available
"Salt Out" Point (°F):		No information available
Melting Point/Freezing Point:		
Boiling Point/Boiling Range:	81 °C / 178 °F	
Flash Point:		No information available
Evaporation Rate (BuAc=1):		No information available
Flammability (solid, gas):		No information available
Flammability Limits in Air:		No information available
Upper Flammability Limit:		
Lower Flammability Limit:		
Vapor Pressure (mm Hg) :		No information available
Vapor density (Air =1)		No information available

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Specific Gravity (H₂O=1):		No information available
Specific Gravity (2nd value):		No information available
Water Solubility:		No information available
Solubility(ies):	Infinitely soluble	
Partition Coefficient (n-octanol/water)		No information available
Autoignition Temperature:		
Decomposition Temperature:		No information available
Kinematic Viscosity:		No information available
Dynamic Viscosity:		No information available
Oxidizing Properties:	No information available	
Explosive Properties:	Not considered to be an explosion hazard	

9.2. Other information

Softening Point:	No information available
Molecular Weight:	36.46
VOC Content(%):	No information available
Density:	1.16
Bulk Density:	No information available

10. Stability and Reactivity

Stability:	Stable under normal conditions of use and storage
Conditions to Avoid:	Exposure to air or moisture over prolonged periods; Direct sunlight; Heat
Incompatible Materials:	Strong acids and bases, Oxidizing agents, Amines, Metal oxides, Hydroxides, Carbonates, Cyanides, Sulfides, Metals, Sulfites, Formaldehyde, Alkali
Hazardous Decomposition Products:	Thermal decomposition can lead to release of irritating and toxic gases and vapors
Possibility of Hazardous Reactions:	None under normal processing

11. Toxicological Information

Product Information

Acute Toxicity: 0.01% of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document

Chemical Name	Oral LD ₅₀	Dermal LD ₅₀	LC ₅₀ (Lethal Concentration)
Hydrochloric acid	700 mg/kg (Rat)	5010 mg/kg (Rabbit)	3124 ppm (Rat) 1 h

Chronic Toxicity:

Carcinogenicity: This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B)

Chemical Name	IARC
Hydrochloric acid	3

IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen

Target Organ Effects: Respiratory system, Eyes, Skin

12. Ecological Information

Ecotoxicity

67.97% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Very toxic to aquatic life

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Hydrochloric acid		282: 96 h <i>Gambusia affinis</i> mg/L LC50 static	

Persistence and Degradability: No information available.

Bioaccumulation: No information available.

Mobility: No information available.

13. Disposal Considerations

Waste from Residues/Unused Products: Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated Packaging: Do not reuse container.

14. Transport Information

DOT

Proper shipping name	HYDROCHLORIC ACID
Hazard Class	8
UN/ID No	UN1789
Packing Group	II
Description	UN1789, HYDROCHLORIC ACID, 8, PG II



15. Regulatory Information

International Inventories

All of the components in the product are on the following inventory lists: TSCA (United States);, Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), China (IECSC),
This product contains a substance not listed on international inventories - it is for research and development use only.

AICS	Complies
TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies

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ENCS Complies
IECSC Complies
KECL Complies
PICCS Complies

Chemical Name	AICS	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS
Hydrochloric acid	Listed	Listed	Listed	-	Listed	-	(1)-215	Listed	KE-20189	Present

Inventory Legend

AICS - Australian Inventory of Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

RESTRICTIONS - REACH TITLE VII No information available

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	CERCLA Hazardous Substances and the Reportable Quantities	SARA Extremely Hazardous Substances EPCRA RQ	SARA Extremely Hazardous Substances TPQ
Hydrochloric acid	5000 lb 2270 kg	5000 lb EPCRA RQ (gas only)	500 lb TPQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Hydrochloric acid	1.0

SARA 311/312 Hazard Categories

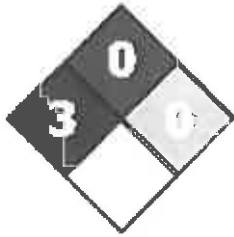
Acute health hazard Yes
Chronic health hazard Yes
Fire hazard No
Sudden release of pressure hazard No
Reactive hazard No

U.S. State Right-to-Know Regulations

California Proposition 65:
 This product does not contain any Proposition 65 chemicals

16: Other Information

National Fire Protection Association (NFPA) Ratings



NSF Certification



**Certified to
NSF/ANSI 60**

Maximum Use (mg/L unless otherwise indicated): 40

Prepared By: HSE Department

Issue Date: 04-Oct-2012

Revision Date: 28-Mar-2014

Revision Note: Updated section(s) 1

Disclaimer:

Please be advised that it is your responsibility to inform your employees of the hazards of this substance, to advise them of what these properties mean and be sure they understand exposure information. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication.

The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. No warranty or guaranty, express or implied, is made regarding performance, stability, or otherwise. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, and storage. Other factors may require additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, the handling and use remains the responsibility of the consumer. No suggestions are intended as, and should not be constructed as, a recommendation to infringe on any existing patents or to violate any Federal, State, or local laws.

End of Safety Data Sheet