

SAFETY DATA SHEET



1. IDENTIFICATION

Product identifier

Product Name Hydrochloric Acid, 7.7N

Other means of identification

Manufacturer number: HA6207-B

Distributor Address

Best Sanitizers, Inc.
PO Box 1360
Penn Valley, CA 95946

Emergency telephone number


Emergency Phone Numbers Aquaphoenix Scientific: 1-800-255-3924

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Specific target organ toxicity following single exposure	Category 3
Acute Toxicity (oral,dermal,inhalation)	Category 3
Serious eye damage	Category 1
Skin corrosion	Category 1A
Corrosive to metals	Category 1

Signal word	Danger		
Hazard statements	May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage. Toxic if swallowed. May cause drowsiness or dizziness.		
			
Appearance	Aqueous solution	Physical State	Liquid
			Odor Pungent Odor

Precautionary Statements

Precautionary Statements - Prevention

Keep out of reach of children. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Read label before use. Wash skin thoroughly after handling.

Precautionary Statements - Response

If medical advice is needed, have product container or label at hand.

Precautionary Statements - Storage

Keep only in original container.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

None.

Other Information

No ingredients of Unknown Acute Toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %	Trade Secret
Hydrochloric Acid, ACS	7647-01-0	75.05	
Water	7732-18-5	24.95	

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Eye Contact

Hold eye(s) open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye(s). Get medical advice/attention.

Skin Contact

Wash affected area with soap and water. Rinse/flush exposed skin gently using water for 15-20 minutes. Get medical attention if irritation persists or if concerned.

Inhalation

Remove to fresh air. Seek immediate medical attention if discomfort or irritation persists.

Ingestion

Rinse mouth thoroughly. Do NOT induce vomiting. Drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects

Inhalation may cause irritation to nose and upper respiratory tract, ulceration, coughing, chest tightness and shortness of breath. Higher concentrations cause tachypnoea, pulmonary oedema and suffocation. Ingestion may cause corrosion of lips, mouth, oesophagus and stomach, dysphagia and vomiting. Pain, eye, ulceration, conjunctival irritation, cataracts and glaucoma may occur following eye exposure. Erythema and skin irritation, as well as chemical burns to skin and mucous membranes may arise following skin exposure. Potential sequelae following ingestion of hydrochloric acid include perforation, scarring of the esophagus or stomach obstruction. In some cases, RADS may develop. Respiratory symptoms may take up to 36 hours to develop.

Indication of any immediate medical attention and special treatment needed

If seeking medical attention, provide SDS document to physician.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate suppression agents for adjacent combustible materials or sources of ignition.

Unsuitable Extinguishing Media

None.

Specific Hazards Arising from the Chemical

Combustion products may include carbon oxides or other toxic vapors. Hydrogen chloride gas.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can produce poisoning chlorine. Hydrochloric acid reacts also with many organic materials with liberation of heat.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Use personal protection recommended in Section 8. Ensure adequate ventilation, especially in confined areas. Keep unprotected persons away. Keep away from ignition sources. Protect from heat. Contained spilled material by diking or using inert absorbent.

For emergency responders

Environmental precautions

Environmental Precautions

Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for Containment

Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (See Section 13).

Methods for Cleaning Up

Use clean non-sparking tools to collect absorbed material. May be ignited by friction, heat, sparks or flames. Collect spillage. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Following product recovery, flush area with water. Place in properly labeled containers. If in a laboratory setting, follow Chemical Hygiene Plan procedures.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

Prevent formation of aerosols. If opening metal containers, use non-sparking tools because of the possibility of hydrogen gas being present. Wash hands after handling. Avoid contact with skin, eyes

and clothing. Do not eat, drink or smoke when using this product. Use personal protection recommended in Section 8. When handling hydrochloric acid avoid contact with metals and organic matters. Never use hot water and never add water to the acid!

Conditions for safe storage, including any incompatibilities

Storage Conditions/ Incompatible materials

Keep Containers tightly closed in a dry, cool and well-ventilated place. Avoid storage

near extreme heat, ignition sources or open flame. Keep away from foodstuffs. Store from oxidizing agents. Protect from freezing and physical damage. Containers for hydrochloric acid must be made from corrosion resistant materials: glass, polyethylene, polypropylene, polyvinyl chloride, carbon steel lined with rubber or ebonite.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrochloric Acid 7647-01-0	2 ppm ceiling	TWA: 7 mg/m ³	5 ppm Ceiling 7 mg/m ³ Ceiling

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Controls

Emergency eyewash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Wear safety glasses with side shields (or goggles).

Skin and Body Protection

Wear impermeable and resistant to the product/ substance/preparation protective gloves. Selection of glove material on consideration of the penetration times, rates of diffusion and degradation.

Respiratory Protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures

The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing and shoes before reuse. Do not Eat, Drink or Smoke when using this product. Do not inhale gases/fumes/dust/mist/vapors/aerosols. Avoid contact with the eyes and skin.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Formula	See Section 3		
Physical State	Liquid		
Appearance	Aqueous solution	Odor	Pungent odor
Color	Clear	Odor Threshold	0.3 - 14.9 mg/m ³
<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>	
pH	< 1		
Melting/freezing point	Approximately 0°C	None known	

Boiling point / boiling range	Approximately 100°C	None known
Flash Point	Not Flammable	N/A
Evaporation rate	> 1.00	None known
Flammability (solid, gas)	Non-Combustible	None known
Flammability Limits in Air		
Upper flammability limit	Nonexplosive	None known
Lower flammability limit	Nonexplosive	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	Not determined	None known
Water Solubility	Soluble in water	None known
Solubility in other solvents	No data available	None known
Partition coefficient:	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

10. STABILITY AND REACTIVITY

Reactivity

Reacts violently with bases and is corrosive.

Chemical stability

No decomposition if used and stored according to specifications.

Possibility of Hazardous Reactions

Reacts violently with oxidants forming toxic gas (chlorine). Attacks many metals in the presence of water forming flammable/explosive gas (hydrogen).

Conditions to avoid

Excess heat. Incompatible products.

Incompatible materials

Metal oxides, formaldehyde. Strong bases. Most metals. Strong oxidizing agents. Reducing agents. Alkalis, cyanides, sulfides. Sulfites.

Hazardous Decomposition Products

Carbon oxides (CO, CO₂). Fumes of hydrogen chloride and hydrogen in contact with metals. Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhalation	Hydrochloric acid
Sensitization	No Information Available
Germ cell mutagenicity	No Information Available
Carcinogenicity	IARC: Group 3
Reproductive toxicity	No Information Available
STOT single exposure	No Information Available
STOT repeated exposure	No Information Available

12. Ecological Data

Ecotoxicity

None.

Persistence and Degradability

Readily Biodegradable.

Bioaccumulation

Not Bioaccumulative.

Mobility

Aqueous solution has high mobility in soil.

Other adverse effects

None.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Disposal of wastes

Cover spill with soda ash or calcium carbonate. Mix and add water to form slurry. Decant to drain. Treat the solid residue as normal refuse. All chemical waste generators must determine whether a discarded chemical is classified as hazardous waste. Disposal should be in accordance with applicable regional, national, and local laws and regulations. Do not dispose together with household garbage.

14. TRANSPORT INFORMATION

DOT

UN ID Number	UN1789
UN proper shipping name	HYDROCHLORIC ACID
Hazard Class	8
Packing Group	II

15. REGULATORY INFORMATION

Chemical Inventories

TSCA	Complies
DSL/NDSL	Complies
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List	

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization of 1986 (SARA).

7647-01-0 Hydrochloric Acid

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

US State Regulations

California Proposition 65

None of the ingredients is listed.

16. OTHER INFORMATION

NFPA	Health Hazard 3	Flammability 0	Instability 1	Physical & Chemical Hazards 0
HMIS	Health Hazard 3	Flammability 0	Physical Hazard 1	Personal Protection X

Prepared By Technical Department

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Version 4

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General Disclaimer

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet