Safety Data Sheet

SECTION 1: Identification

Product Name Hydrochloric Acid, 1.00 N

Other Identifiers Hydrochloric Acid, 1.00 M; 84410-30, 84410-31

Recommended Uses General Laboratory Reagent/Chemical.

Uses Advised Against Not intended for drug, food or household use.

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SECTION 2: Hazard(s) Identification

Serious eye damage/eye irritation (Category 1)

Skin corrosion/irritation (Category 1)

Hazards not otherwise classified or covered by GHS

None identified.

Signal Word

DANGER

Hazard Statements

Causes severe skin burns and serious eye damage.

Precautionary Statements

Do not breathe mist, vapors or spray. Wash areas of contact/exposure thoroughly after handling. Wear protective gloves and clothing and eye protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. In all cases of contact: Get emergency medical help immediately. Store locked up. Dispose of contents/container in accordance with local, state, federal and international regulations.

SECTION 3: Composition / Information on Ingredients

Component Name	Component Number CAS	Component Number EC	Component Weight %
Hydrochloric acid	7647-01-0	231-595-7	3.7
Water	7732-18-5	231-791-2	Remainder

SECTION 4: First-Aid Measures

General Advice	Show this SDS to attending physician if medical treatment is needed.
Skin Contact	Immediately wash affected area with soap and water while removing contaminated clothing . Seek medical attention if there is any evidence of skin damage or persistent irritation.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. Seek immediate medical attention.
Inhalation	Remove person to fresh air and keep comfortable for breathing. If breathing is difficult or labored, seek medical attention.
Ingestion	Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or physician.
Symptoms/effects	The most important known symptoms/effects are described in Section 2 of this Safety Data Sheet.
Treatment	Treat symptomatically.

SECTION 5: Fire-Fighting Measures

Extinguishing Media	Substance is not flammable, use agent most appropriate to extinguish surrounding fire (water, carbon dioxide, dry chemical, sand/earth, foam).
Specific Hazards	Thermal decomposition may produce toxic or irritating fumes.
Actions for Firefighters	As with any chemical involved in 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.

SECTION 6: Accidental Release Measures

Precautions and Procedures	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate unprotected personnel to safe areas. Keep people away from and upwind of spill/leak.
Environmental Precautions	As with any chemical, avoid release to the environment for the responsible stewardship of our planet.
Containment and Clean Up	Contain and absorb with inert absorbent material. Wear respiratory protection, gloves, eye protection and protective clothing. Sweep up or vacuum up spillage and collect in suitable lidded container for disposal.

Section 7: Handling and Storage

Handling	Follow good hygiene procedures when handling chemical materials. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use personal items when handling chemical substances. As a general practice, wear gloves and eye protection when handling chemical substances.
Storage	Keep containers tightly closed in a cool, dry and well-ventilated place. Protect from freezing and physical damage. Store separately from incompatible materials.

Section 8: Exposure Controls / Personal Protection

Engineering Controls	As part of safe chemical handling, emergency eye wash fountains and safety showers should be available in handling areas. Provide sufficient ventilation measures to keep the airborne concentration below the applicable workplace exposure limits.
Exposure Limits	Hydrogen chloride PEL-Ceiling 7 mg/m³ US-OSHA
Exposure Limits	Hydrogen chloride REL-Ceiling 5 ppm US-NIOSH
Exposure Limits	Hydrogen chloride TLV-Ceiling 2 ppm US-ACGIH
Eye Protection	Wear safety glasses with side shields or safety goggles. Wear face shield if there is risk of splashes.
Skin Protection	Wear chemical resistant gloves and protective clothing.
Respiratory Protection	Where exposure limits are exceeded and cannot be adequately controlled by other engineering means (such as a chemical fume hood), wear respiratory protection.

Section 9: Physical and Chemical Properties

Physical State	Liquid
Appearance/Color	Colorless
Odor	Faintly acrid
Odor Threshold	5 ppm
Melting/Freezing Point	Approximately 0°C
Boiling Point/Range	Approximately 100°C
Flammability	Not flammable
Flammable/Explosive Limits	Not applicable
Flash Point	Not applicable
Auto-Ignition Temperature	Not applicable
Decomposition Temperature	Data not available
pH	0
Viscosity	Data not available

Solubility (in water)	Miscible
Partition Coefficient (n-octanol/water)	Data not available
Relative Density	1.0177
Vapor Pressure	Data not available
Vapor Density	Data not available
Evaporation Rate	Data not available
Particle Characteristics	Not applicable.

Section 10: Stability and Reactivity

Reactivity	Reacts with metals to generate flammable hydrogen gas. Reacts violently with bases to form toxic chlorine gas.
Chemical Stability	Stable under normal conditions of handling and storage.
Hazardous Reactions	Generates heat and potentially hazardous fumes when mixed with water.
Conditions to Avoid	Avoid contact with incompatible materials.
Incompatible Materials	Acetic anhydride, aliphatic amines, strong bases.
Hazardous Decomposition	Thermal decomposition can produce chlorine, hydrogen chloride.

Section 11: Toxicological Information

Acute Toxicity - Oral	The toxicological data is limited or unavailable.
Acute Toxicity - Dermal	The toxicological data is limited or unavailable.
Acute Toxicity - Inhalation	ATE: 84,432 mg/m³
Skin Corrosion/Irritation	Causes severe skin burns.
Eye Damage/Irritation	This material can cause serious eye damage.
Respiratory Sensitization	Not expected to cause respiratory sensitization.
Skin Sensitization	Not expected to cause skin sensitization.
Germ Cell Mutagenicity	Based on available data, this substance does not meet the criteria set forth for classification as causing germ cell mutagenicity.
Carcinogenicity	This material has not been identified as a carcinogen by IARC or NTP.
Reproductive Toxicity	Based on available data, this substance does not meet the criteria set forth for classification as a reproductive toxin.
STOT Single Exposure	None known.
STOT Repeated Exposure	None known.
Aspiration Hazard	This substance is not considered to be an aspiration hazard.
Other Information	No additional information available.

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Section 12: Ecological Information

Toxicity Values	ATE: 7027 mg/L
Persistence/Biodegradability	The methods for determining biological degradability do not apply to inorganic substances.
Bioaccumlation Potential	Data is not available for this mixture of substances.
Mobility in Soil	Data is not available for this mixture of substances.
Other Adverse Effects	None known.

Section 13: Disposal Considerations

Discharge, treatment, or disposal may be subject to national, state, regional or local laws. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Since emptied containers retain product residue, follow label warnings even after container is emptied. Dispose in accordance with national, state, regional and local regulations.

Section 14: Transport Information

UN Number	UN1789
Proper Shipping Name, Hazard Class	HYDROCHLORIC ACID SOLUTION, 8
Packing Group	III
Marine Pollutant	Not classified as a marine pollutant.

Section 15: Regulatory Information

USA TSCA	All components are on or in compliance with the inventory.
USA SARA 302/304	Hydrochloric acid, TPQ 4540 kg (10,000 lbs) RQ 2270 kg (5000 lbs)
USA SARA 311/312	Hydrochloric acid
USA SARA 313 (TRI)	No components are listed.
Canada DSL/NDSL	All components are on or in compliance with DSL.
California Proposition 65	This product contains no substances on the list.

Section 16: Other Information

Acronyms

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
ATE	Acute Toxicity Estimate (calculated toxicity value)
BCF	Bioconcentration Factor
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (USA)
DOT	Department of Transportation (USA)
DSL	Domestic Substances List (Canada)
EHS	Extremely Hazardous Substance
EPA	Environmental Protection Agency (United States)
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IDLH	Immediately Dangerous to Life and Health
NTP	National Toxicology Program (USA)
OSHA	Occupational Safety and Health Administration (USA)
PEL	Permissible Exposure Limit
PNOR	Particulates Not Otherwise Classified
PPE	Personal Protective Equipment
ppb	Parts per billion
ppm	Parts per million
RQ	Reportable Quantity
SARA	Superfund Amendments and Reauthorization Act (USA)
TLV	Threshold Limit Value
TPQ	Threshold Planning Quantity
TRI	Toxic Release Inventory (USA)
TSCA	Toxic Substances Control Act (USA)
TWA	Time Weighted Average
UN	United Nations

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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: *product safety department*

Contact: *SPEX CertiPrep, LLC. 1-732-549-7144*