



Safety Data Sheet

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Hydrochloric Acid, 0.100 Normal (N/10) in Isopropanol

Product Number: H-1034A

Other Identifying Product Numbers: CH1034A0-1C, H-1034A-3

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company: Reagents Inc.

Address: 4746 Sweden Road
Charlotte, NC 28224 USA

Telephone: 800-732-8484

1.4. Emergency Telephone Number (24 hr)

CHEMTREC (USA) 800-424-9300
CHEMTREC (International) 1+ 703-527-3887

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

Hazard Class	Category	Hazard	
		Statement	Precautionary Statements
Eye Damage / Irritation	Category 2A	H319	P264, P280, P305+P351+P338, P337+P313
Respiratory Sensitizer	Category 1	H334	P261, P285, P304+P341, P342+P311, P501
Reproductive Toxicity	Category 2	H361	P201, P202, P280, P308+P313, P405, P501
Specific Target Organs/Systemic Toxicity Following Single Exposure	Category 1	H370	P260, P264, P270, P307+P311, P321, P405, P501
Specific Target Organs/Systemic Toxicity Following Repeated Exposure	Category 2	H373	P260, P314, P501
Flammable Liquids	Category 2	H225	P210, P233, P240, P241, P242, P243, P280, P303+P361+P353, P370+P378, P403+P235, P501
Hazardous to the Aquatic Environment (Acute)	Category 3	H402	P273, P501

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2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

Hazard Number	Hazard Statement
H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H361	Suspected of damaging fertility or the unborn child.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life.

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Precautionary Statements:

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, sparks and open flame. No smoking.
P233	Keep container tightly closed.
P240	Ground container and receiving equipment.
P241	Use explosion-proof equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust, fumes or mist.
P261	Avoid breathing dust, fumes or mist.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P285	In case of inadequate ventilation wear respiratory protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P341	IF INHALED: If breathing is difficult, remove 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.
P307+P311	IF exposed: Call a POISON CENTER or physician.
P308+P313	IF exposed or concerned: Get medical attention.
P314	Get medical attention if you feel unwell.
P321	Specific treatment (Wash areas of contact with water).
P337+P313	If eye irritation persists: Get medical attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or physician.
P405	Store locked up.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

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SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Isopropyl Alcohol	$\text{CH}_3\text{CHOHCH}_3$	60.09 g/mol	67-63-0	98.71%
Water	H_2O	18.01 g/mol	7732-18-5	0.82%
Hydrochloric Acid	HCl	36.46 g/mol	7647-01-0	0.48%

SECTION 4: First-Aid Measures

4.1. General First Aid Information

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

Inhalation: IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.

Skin Contact: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. May result in drying and cracking, which can lead to secondary infections and dermatitis.

Ingestion: Dilute immediately with water or milk. Induce vomiting. Call a physician.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Flammable liquid. Contact may cause dryness and cracking of the skin. May cause irritation of the respiratory system. Causes irritation to the eyes. If ingested, give large quantity of water and induce vomiting. Call a physician. Wash areas of contact with water. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: May result in drying and cracking, which can lead to secondary infections and dermatitis.

4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water).

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Carbon dioxide, dry chemical, alcohol foam

5.2. Specific Hazards Arising from the Substance or Mixture

Highly flammable liquid and vapor. Vapors may explode if ignited in an enclosed area.

5.3. Special Protective Equipment for Firefighters

Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.



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SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

6.2. Cleanup and Containment Methods and Materials

Remove all sources of ignition. Contain spill. Do not flush to sewer. Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal in an approved waste disposal facility. Ventilate area of spill. Have extinguishing agent available in case of fire. Use non-sparking tools and equipment. Dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Store in secure, flammable storage area away from all sources of ignition. Empty containers may be hazardous since they retain product residues.

SECTION 8: Exposure Controls / Personal Protection

8.1. Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Hydrochloric Acid (7647-01-0)	TLV-Ceiling	USA	2 ppm Ceiling	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrochloric Acid (7647-01-0)	PEL-Ceiling	USA	5 ppm Ceiling 7 mg/m ³ Ceiling	U.S. - OSHA - Final PELs - Ceiling Limits
Isopropyl Alcohol (67-63-0)	TWA	USA	400 ppm TWA 980 mg/m ³ TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Isopropyl Alcohol (67-63-0)	TLV-STEL	USA	400 ppm STEL	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Isopropyl Alcohol (67-63-0)	TLV-TWA	USA	200 ppm TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

8.2. Exposure Controls

Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

Respiratory Protection: In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn.

Skin Protection: Wear protective gloves and eye protection. Chemical resistant gloves.

Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles.

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8.3. Personal Protective Equipment

Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection. Normal room ventilation is adequate. If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn. Chemical resistant gloves. Safety glasses or goggles.

SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Colorless liquid

Physical State: Liquid

Odor: Alcohol-like

Odor Threshold: Data not available.

pH: 1

Melting/Freezing Point: -90°C

Initial Boiling Point /Range: 82.5°C [DIN 43171] - 82.5°C [DIN 43171]

Flash Point: 12°C

Evaporation Rate: 2.3 (butyl acetate = 1)

Flammability: Data not available.

Flammability/Explosive Limits: Data not available.

Vapor Pressure: 42 hPa at 20°C

Vapor Density: 2.07

Relative Density: 0.80

Solubility: Miscible at 20°C

Partition Coefficient (n-Octanol/Water): 0.05 at 25 °C

Auto-Ignition Temperature: Data not available.

Decomposition Temperature: Data not available.

Viscosity: Data not available.

Explosive Properties: Data not available.

Oxidizing Properties: Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.



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10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Strong oxidizing agents such as Nitrates, Perchlorates or

10.4. Hazardous Decomposition Products

Will not occur.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LD50, Oral, Rat: (Isopropanol) 5045 mg/kg, behavioral effects noted. LC50, Inhalation, Rat: (Isopropanol) 16000 ppm/8hrs. No toxic effect noted. Investigated as a tumorigen, mutagen, and reproductive effector. LD50, Oral, Rabbit (Hydrochloric Acid) 900 mg/kg, details of toxic effects not reported other than lethal dose value.

Skin Corrosion and Irritation:

Not applicable.

Serious Eye Damage and Irritation:

Causes serious eye irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Respiratory Sensitization:

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Avoid breathing dust, fumes or mist. In case of inadequate ventilation wear respiratory protection. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or physician. Dispose of contents in accordance with local, state, federal and international regulations.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

Not applicable.



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Reproductive Toxicity:

Suspected of damaging fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific Target Organ Toxicity from Single Exposure:

Causes damage to organs. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

Specific Target Organ Toxicity from Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure. Do not breathe dust, fumes or mist. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

SECTION 12: Ecological Information

12.1. Ecotoxicity

Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

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SECTION 14: Transportation Information

14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

UN Number: UN1219

Proper Shipping Name: Isopropanol Solution

Hazard Class: 3

Packing Group: II

Hazard Placard Labels:



14.2. Transportation by Air - International Air Transport Association (IATA)

UN Number: UN1219

Proper Shipping Name: Isopropanol Solution

Hazard Class: 3

Packing Group: II

Hazard Placard Labels:



SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Hydrochloric Acid (CAS # 7647-01-0): 500 lb TPQ (gas only)

Hydrochloric Acid (CAS # 7647-01-0): 5000 lb EPCRA RQ (gas only)

15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Hydrochloric Acid (CAS # 7647-01-0): 5000 lb final RQ; 2270 kg final RQ

15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Isopropyl Alcohol (CAS # 67-63-0): 1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

Hydrochloric Acid (CAS # 7647-01-0): 1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)



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15.5. Massachusetts Right-to-Know Substance List

Isopropyl Alcohol (CAS # 67-63-0): Present
Hydrochloric Acid (CAS # 7647-01-0): Extraordinarily hazardous

15.6. Pennsylvania Right-to-Know Hazardous Substances

Isopropyl Alcohol (CAS # 67-63-0): Environmental hazard
Isopropyl Alcohol (CAS # 67-63-0): Present
Isopropyl Alcohol (CAS # 67-63-0): Special hazardous substance
Hydrochloric Acid (CAS # 7647-01-0): Environmental hazard
Hydrochloric Acid (CAS # 7647-01-0): Present
Water (CAS # 7732-18-5): Present

15.7. New Jersey Worker and Community Right-to-Know Components

Isopropyl Alcohol (CAS # 67-63-0): flammable - third degree
Isopropyl Alcohol (CAS # 67-63-0): sn 1076
Isopropyl Alcohol (CAS # 67-63-0): SN 1076 TPQ: 500 lb (manufacturing - strong acid process only)
Hydrochloric Acid (CAS # 7647-01-0): corrosive
Hydrochloric Acid (CAS # 7647-01-0): sn 1012
Hydrochloric Acid (CAS # 7647-01-0): SN 1012 TPQ: 500 lb ($\geq 37\%$ concentration); SN 2909 TPQ: 500 lb (Hydrogen chloride gas only. NJ uses UN1050 for reporting purposes)

15.8. California Proposition 65

Not listed.

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Isopropyl Alcohol (CAS # 67-63-0): Present
Hydrochloric Acid (CAS # 7647-01-0): Present
Water (CAS # 7732-18-5): Present

15.10. United States of America Toxic Substances Control Act (TSCA) List

Isopropyl Alcohol (CAS # 67-63-0): Present
Hydrochloric Acid (CAS # 7647-01-0): Present [T]
Water (CAS # 7732-18-5): Present

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Not listed.

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SECTION 16: Other Information

16.1. Full Text of Hazard Statements and Precautionary Statements

Highly flammable liquid and vapor. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of damaging fertility or the unborn child. Causes damage to organs. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves and eye protection. In case of inadequate ventilation wear respiratory protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed: Call a POISON CENTER or physician. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water). If eye irritation persists: Get medical attention. If experiencing respiratory symptoms: Call a POISON CENTER or physician. In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.

Store in a well-ventilated place. Keep cool. Store locked up.

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

16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

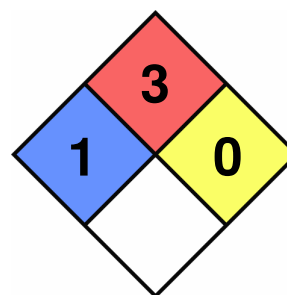
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

Health Hazards Not Otherwise Classified (HHNOC): Not Applicable.

Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

Health: 1
Flammability: 3
Reactivity: 0
Special Hazard:





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16.4. Document Revision

Last Revision Date: 6/23/2015

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and REAGENTS, INC. assumes no legal responsibility or liability whatsoever resulting from its use.