

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Hydroxylamine Hydrochloride
CAS number	5470-11-1
Synonyms	Hydroxylammonium chloride, oxammonium hydrochloride

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals
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1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification


2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Corrosive to metals	Category 1
Acute oral toxicity	Category 3
Acute dermal toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Carcinogenicity	Category 2

Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - spleen, blood, thyroid.	
Combustible dust	Yes

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	May form combustible dust concentrations in air. May be corrosive to metals. Toxic if swallowed. Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.
Precautionary statements	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Do not breathe dust/fumes/gas/mist/vapors/spray. Keep only in original container. Wear protective gloves/protective clothing/eye protection/face protection.
Response	IF exposed or concerned: Get medical attention/advice.
Skin	IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Eyes	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 advice/attention.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
Spills	Absorb spillage to prevent material damage.
Storage	Store locked up. Store in a corrosive resistant polypropylene container with a resistant inliner. Store in a well-ventilated place. Keep container tightly closed.
Disposal	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Very toxic to aquatic life.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Hydroxylamine hydrochloride	Hydroxylammonium chloride, oxammonium hydrochloride	5470-11-1	<=100%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Remove to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
If swallowed	Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Water spray, carbon dioxide (CO ₂), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.
Unsuitable extinguishing media	No information available.

5.2 Specific hazards arising from the substance or mixture

Risk of explosion by shock, friction, fire or others sources of ignition. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors. Do not allow run-off from fire-fighting to enter drains or water courses. Fine dust dispersed in air may ignite.

5.3 Special 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 lead to release of irritating gases and vapors.

5.4 Further information

Flash Point No information available

Autoignition Temperature No information available

Explosion limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No data available

Sensitivity to Static Discharge No data available

NFPA

Health	Flammability	Instability	Physical hazards
3	3	1	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Remove all sources of ignition. Take precautionary measures against static discharges.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional ecological information. Avoid release to the environment. Collect spillage.

6.3 Methods and materials for containment and cleaning up

Remove all sources of ignition. Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Corrosives area. Incompatible materials.

Incompatibilities

Strong oxidizing agents. Heavy metals.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

No information available.

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting equipment.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	2.5 - 3.5 5% aq.sol
Melting Point/Range	155 - 158 °C / 311 - 316.4 °F
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Density	1.6700
Solubility	560 g/L (20 °C)
Partition coefficient; n-octanol/water	No information available
Autoignition Temp	No information available
Decomposition Temp	152 °C
Viscosity	No information available
Molecular Formula	H3NO.HCl
Molecular Weight	69.49
VOC Content(%)	No information available
Oxidizing properties	No information available

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Yes

10.2 Chemical stability

Moisture sensitive. Air sensitive.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Avoid dust formation. Incompatible products. Excess heat. Exposure to air. Exposure to moist air or water.

10.5 Incompatible materials

Strong oxidizing agents, heavy metals.

10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide, hydrogen chloride gas.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydroxylamine, hydrochloride	141 mg/kg (rat)	-	-

Skin corrosion/irritation

Irritating to skin

Serious eye damage/eye irritation

Irritating to eyes

Respiratory or skin sensitization

No information available

Germ cell mutagenicity

No information available

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Hydroxylamine, hydrochloride	5470-11-1	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

None known.

Specific target organ toxicity - repeated exposure

Spleen, Blood, Thyroid.

Reproductive toxicity

No information available.

Chronic effects

No information available.

11.2 Additional Information

No information available.

SECTION 12: Ecological information**12.1 Toxicity**

Product		Species	Test Results
Hydroxylamine, hydrochloride	LC50	Freshwater Fish (Leuciscus idus)	1 - 10 mg/L 48 h

12.2 Persistence and degradability

Soluble in water, persistence is unlikely based on information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

Will likely be mobile in the environment due to its water solubility.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1 Waste Disposal Methods**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information**DOT (US)****UN-No**

UN2923

Proper Shipping Name

CORROSIVE SOLID, TOXIC, N.O.S.

Hazard Class

8

Subsidiary Hazard Class

6.1

Packing Group

III

IMDG

UN-No UN2923
Proper Shipping Name CORROSIVE SOLID, TOXIC, N.O.S.
Hazard Class 8
Subsidiary Hazard Class 6.1
Packing Group III

IATA

UN-No UN2923
Proper Shipping Name CORROSIVE SOLID, TOXIC, N.O.S.
Hazard Class 8
Subsidiary Hazard Class 6.1
Packing Group III

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous

See section 2 for more information.

SARA 313 (TRI reporting)

Not regulated

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated

**FEMA Priority Substances Respiratory Health and Safety in the Flavor
Manufacturing Workplace**
Not listed

US state regulations

US. Massachusetts RTK - Substance List
Not listed

US. New Jersey Worker and Community Right-to-Know Act
Not listed

US. Pennsylvania Worker and Community Right-to-Know Law
Not listed

California Proposition 65
Not listed

SECTION 16: Other information

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SECTION 17: Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.