

Safety Data Sheet

Hydroxylamine Hydrochloride

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Hydroxylamine Hydrochloride
Recommended Use: Science education applications
Synonyms: Oxammonium hydrochloride; hydroxylammonium chloride
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



May be corrosive to metals. Toxic if swallowed. Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

GHS Classification:

Substance or mixture corrosive to metals Category 1, Skin Sensitisation Category 1, Hazardous to the aquatic environment - Acute Category 1, Hazardous to the aquatic environment - Chronic Category 1, Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Carcinogenicity Category 2, Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 2, Acute Toxicity - Oral Category 3, Acute Toxicity - Dermal Category 4

Other Safety Precautions: IF exposed or concerned: Get medical advice/attention.

Acute Toxicity Inhalation Gas Contains 100 % of the mixture consists of ingredient(s) of unknown toxicity

Acute Toxicity Inhalation Vapor Contains 100 % of the mixture consists of ingredient(s) of unknown toxicity

Acute Toxicity Inhalation Dust/Mist Contains 100 % of the mixture consists of ingredient(s) of unknown toxicity

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Hydroxylamine Hydrochloride	5470-11-1	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.

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.

Skin Contact: IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Safety Data Sheet

Section 5

Firefighting Procedures

Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.
Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards:	Can react explosively with certain reducing agents and combustibles such as metal powders, carbides, H ₂ S, turpentine. May explode upon heating.
Hazardous Combustion Products:	Hydrogen chloride, Nitrogen oxides

Section 6

Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Avoid contact with material, avoid breathing dusts or fumes, use only in a well ventilated area. Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Absorb spillage to prevent material damage. Collect spillage.
---	---

Section 7

Handling and Storage

Handling:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep only in original container. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. Keep container tightly closed in a cool, well-ventilated place. Keep away from oxidizing materials and strong acids. May explode upon heating. May cause severe irritation or chemical burns.
Storage:	Store locked up. Store in corrosive resistant/... container with a resistant inner liner. Store in a secure area suitable for the storage of reactive material. Avoid direct sunlight and heat. Store at controlled room temperature.
Storage Code:	Blue - Toxic. Store separately in a secured area.

Section 8

Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>	<u>OSHA PEL</u>		
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
No data available	N/A	N/A	N/A	N/A

Control Parameters

Engineering Measures:	No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.
Personal Protective Equipment (PPE):	Lab coat, apron, eye wash, safety shower.
Respiratory Protection:	No respiratory protection required under normal conditions of use. Respiratory protection may be required in addition to ventilation depending upon conditions of use.
Eye Protection:	Wear chemical splash goggles when handling this product. Have an eye wash station available.
Skin Protection:	Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Gloves:	Nitrile

Safety Data Sheet

Section 9

Physical Data

Formula: NH₂OH·HCl

Molecular Weight: 69.49

Appearance: White Crystals

Odor: No data available

Odor Threshold: No data available

pH: 2.5 - 3.5 at 50 g/l at 20 °C

Melting Point: 155 - 157 C

Boiling Point: No data available

Flash Point: No data available

Flammable Limits in Air: N/A

Vapor Pressure: N/A

Evaporation Rate (BuAc=1): N/A

Vapor Density (Air=1): N/A

Specific Gravity: 1.67

Solubility in Water: Slightly Soluble

Log Pow (calculated): No data available

Autoignition Temperature: No data available

Decomposition Temperature: No data available 150 C

Viscosity: No data available

Percent Volatile by Volume: N/A

Section 10

Reactivity Data

Reactivity:

No data available

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

Exposure to moisture Exposure to air. Keep lid tightly closed when not in use.

Incompatible Materials:

Calcium, Strong oxidizing agents, Anhydrides,

Hazardous Decomposition Products:

Nitrogen oxides, Hydrogen chloride

Hazardous Polymerization:

Will not occur

Section 11

Toxicity Data

Routes of Entry

N/A

Symptoms (Acute):

, Blood disorders, Impaired Kidney Function

Delayed Effects:

No data available

Acute Toxicity:

Chemical Name

Hydroxylamine Hydrochloride

CAS Number

5470-11-1

Oral LD50

Oral LD50 Rat 141

mg/kg

Dermal LD50

Not determined

Inhalation LC50

Not determined

Carcinogenicity:

Chemical Name

No data available

CAS Number

5470-11-1

IARC

Not listed

NTP

Not listed

OSHA

Not listed

Chronic Effects:

Mutagenicity:

No evidence of a mutagenic effect.

Teratogenicity:

No evidence of a teratogenic effect (birth defect).

Sensitization:

Evidence of a sensitization effect.

Reproductive:

No evidence of negative reproductive effects.

Target Organ Effects:

Acute:

See Section 2

Chronic:

Teratogen data cited., Mutation data cited., Certain components or species of this product are considered potential carcinogens.

Section 12

Ecological Data

Overview:

Severe ecological hazard. This product may be toxic to plants and/or wildlife. Keep out of waterways.

Mobility:

No data

Persistence:

No data

Bioaccumulation:

No data

Degradability:

No data

Other Adverse Effects:

No data

Chemical Name

N/A

CAS Number

5470-11-1

Eco Toxicity

Section 13

Disposal Information

Disposal Methods:

Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Safety Data Sheet

Waste Disposal Code(s): Not Determined

Section 14 Transport Information

Ground - DOT Proper Shipping Name:

UN number: 2923 Class: 8 (6.1) Packing group: III Proper shipping name: Corrosive solids, toxic, n.o.s. (Hydroxylamine hydrochloride) Reportable Quantity (RQ): Marine pollutant: No Poison Inhalation Hazard: No

Air - IATA Proper Shipping Name:

UN number: 2923 Class: 8 (6.1) Packing group: III Proper shipping name: Corrosive solid, toxic, n.o.s. (Hydroxylamine hydrochloride)

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
No data available	5470-11-1	No	No	No	No	No

Section 16 Additional Information

Revised: 09/09/2015

Replaces: 09/03/2014

Printed: 10-29-2015

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health