

# SAFETY DATA SHEETS

According to the UN GHS revision 9

Version: 1.1  
Creation Date: July 15, 2019  
Revision Date: May 20, 2024

## SECTION 1: Identification

### 1.1 GHS Product identifier

Product name Hydroxylamine sulfate

### 1.2 Other means of identification

Product number C1003712

Other names Oxammonium sulfate;HYDROXYLAMINE SULPHATE;Hydroxylammonium Sulfate

### 1.3 Recommended use of the chemical and restrictions on use

Identified uses For laboratory and Industrial use only.

Uses advised against no data available

### 1.4 Supplier's details

Company CATO Research Chemicals Inc.

Address 3/F,Building B,No.179 BASIGO, Guangpu Rd East,Huangpu Dist,Guangzhou

Telephone +86-20-81960175

### 1.5 Emergency phone number

Emergency phone number +86-20-81960175

Service hours 'Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

Corrosive to metals, Category 1

Acute toxicity - Category 4, Oral

Acute toxicity - Category 4, Dermal

Skin irritation, Category 2

Eye irritation, Category 2

Skin sensitization, Category 1

Carcinogenicity, Category 2

Specific target organ toxicity – repeated exposure, Category 2

Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1

### 2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Warning

Hazard statement(s)

H290 May be corrosive to metals

H302 Harmful if swallowed

H312 Harmful in contact with skin

H315 Causes skin irritation

H319 Causes serious eye irritation

H317 May cause an allergic skin reaction

H351 Suspected of causing cancer

H373 May cause damage to organs through prolonged or repeated exposure

H400 Very toxic to aquatic life

Precautionary statement(s)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Prevention</b> | <p>P234 Keep only in original packaging.</p> <p>P264 Wash ... thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...</p> <p>P261 Avoid breathing dust/fume/gas/mist/vapours/spray.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P203 Obtain, read and follow all safety instructions before use.</p> <p>P260 Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>P273 Avoid release to the environment.</p>                                                                                                                                                                                   |
| <b>Response</b>   | <p>P390 Absorb spillage to prevent material damage.</p> <p>P301+P317 IF SWALLOWED: Get medical help.</p> <p>P330 Rinse mouth.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water/...</p> <p>P317 Get medical help.</p> <p>P321 Specific treatment (see ... on this label).</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P332+P317 If skin irritation occurs: Get medical help.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P333+P317 If skin irritation or rash occurs: Get medical help.</p> <p>P318 IF exposed or concerned, get medical advice.</p> <p>P319 Get medical help if you feel unwell.</p> <p>P391 Collect spillage.</p> |
| <b>Storage</b>    | <p>P406 Store in a corrosion resistant/...container with a resistant inner liner.</p> <p>P405 Store locked up.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Disposal</b>   | <p>P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## 2.3 Other hazards which do not result in classification

no data available

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

| Chemical name         | Common names and synonyms      | CAS number | EC number | Concentration |
|-----------------------|--------------------------------|------------|-----------|---------------|
| Hydroxylamine sulfate | Bis(hydroxylammonium) sulphate | 10039-54-0 | 233-118-8 | 100%          |

## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

#### If inhaled

Fresh air, rest. Refer for medical attention.

#### Following skin contact

Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention .

#### Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

#### Following ingestion

Rinse mouth. Give a slurry of activated charcoal in water to drink. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention .

### 4.2 Most important symptoms/effects, acute and delayed

no data available

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

## SECTION 5: Fire-fighting measures

### 5.1 Suitable extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

### 5.2 Specific hazards arising from the chemical

Combustible. Gives off irritating or toxic fumes (or gases) in a fire.

### 5.3 Special protective actions for fire-fighters

Use water in large amounts, powder, alcohol-resistant foam, carbon dioxide. In case of fire: keep drums, etc., cool by spraying with water.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal protection: P2 filter respirator for harmful particles. Sweep spilled substance into covered containers. Carefully collect remainder. Then store and dispose of according to local regulations. Do NOT let this chemical enter the environment.

### 6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

NO open flames. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### 7.2 Conditions for safe storage, including any incompatibilities

Separated from oxidants, nitrates, nitrites and combustible substances.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational Exposure limit values**

no data available

**Biological limit values**

no data available

### 8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

**Eye/face protection**

Wear safety spectacles or eye protection in combination with breathing protection.

**Skin protection**

Protective gloves. Protective clothing.

**Respiratory protection**

Use ventilation, local exhaust or breathing protection.

**Thermal hazards**

no data available

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## SECTION 9: Physical and chemical properties and safety characteristics

|                                                          |                      |
|----------------------------------------------------------|----------------------|
| Physical state                                           | Solid. Crystalline.  |
| Colour                                                   | Colourless to white. |
| Odour                                                    | no data available    |
| Melting point/freezing point                             | 120 (decomposition)  |
| Boiling point or initial boiling point and boiling range | 165°C                |
| Flammability                                             | no data available    |
| Lower and upper explosion limit/flammability limit       | no data available    |
| Flash point                                              | 48°C(lit.)           |
| Auto-ignition temperature                                | no data available    |
| Decomposition temperature                                | no data available    |
| pH                                                       | no data available    |

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|                                       |                                                                                             |
|---------------------------------------|---------------------------------------------------------------------------------------------|
| Kinematic viscosity                   | no data available                                                                           |
| Solubility                            | Miscible with water                                                                         |
| Partition coefficient n-octanol/water | log Pow = -3.6. Temperature: 25 °C.                                                         |
| Vapour pressure                       | < 0 hPa. Temperature: 20 °C.                                                                |
| Density and/or relative density       | 1.88 g/cm <sup>3</sup> . Temperature: 20 °C.; 1 100 kg/m <sup>3</sup> . Temperature: 20 °C. |
| Relative vapour density               | no data available                                                                           |
| Particle characteristics              | no data available                                                                           |

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

no data available

### 10.3 Possibility of hazardous reactions

Decomposes on contact with hot surfaces or flames. This produces corrosive fumes of sulfur oxides. The solution in water is a medium strong acid. The substance is a strong reducing agent. It reacts violently with oxidants, powdered metals, nitrates, nitrites and heavy metal salts.

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### Acute toxicity

- Oral: LD50 - rat (male/female) - 642 mg/kg bw.
- Inhalation: no data available
- Dermal: LD50 - rabbit (male/female) - > 1 500 - < 2 000 mg/kg bw.

### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

no data available

### Reproductive toxicity

no data available

### STOT-single exposure

The substance is irritating to the eyes and skin. The substance may cause effects on the blood. This may result in the formation of methaemoglobin.

### STOT-repeated exposure

Repeated or prolonged contact may cause skin sensitization. The substance may have effects on the blood. This may result in anaemia.

### Aspiration hazard

A harmful concentration of airborne particles can be reached quickly when dispersed.

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## SECTION 12: Ecological information

### 12.1 Toxicity

- Toxicity to fish: LC50 - Pimephales promelas - 7.2 mg/L - 96 h.

- Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna - 1.62 mg/L - 48 h.
- Toxicity to algae: EC50 - Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) - 0.72 mg/L - 72 h.
- Toxicity to microorganisms: EC10 - activated sludge, domestic - 0.7 mg/L - 180 min. Remarks: Respiration rate.

## 12.2 Persistence and degradability

no data available

## 12.3 Bioaccumulative potential

no data available

## 12.4 Mobility in soil

no data available

## 12.5 Other adverse effects

no data available

# SECTION 13: Disposal considerations

## 13.1 Disposal methods

### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

# SECTION 14: Transport information

## 14.1 UN Number

ADR/RID: UN2865 (For reference only, please check.) IMDG: UN2865 (For reference only, please check.) IATA: UN2865 (For reference only, please check.)

## 14.2 UN Proper Shipping Name

ADR/RID: HYDROXYLAMINE SULPHATE (For reference only, please check.) IMDG: HYDROXYLAMINE SULPHATE (For reference only, please check.) IATA: HYDROXYLAMINE SULPHATE (For reference only, please check.)

## 14.3 Transport hazard class(es)

ADR/RID: 8 (For reference only, please check.) IMDG: 8 (For reference only, please check.) IATA: 8 (For reference only, please check.)

## 14.4 Packing group, if applicable

ADR/RID: III (For reference only, please check.) IMDG: III (For reference only, please check.) IATA: III (For reference only, please check.)

## 14.5 Environmental hazards

ADR/RID: Yes IMDG: Yes IATA: Yes

## 14.6 Special precautions for user

no data available

## 14.7 Transport in bulk according to IMO instruments

no data available

# SECTION 15: Regulatory information

## 15.1 Safety, health and environmental regulations specific for the product in question

| Chemical name                                                          | Common names and synonyms      | CAS number | EC number |
|------------------------------------------------------------------------|--------------------------------|------------|-----------|
| Bis(hydroxylammonium) sulphate                                         | Bis(hydroxylammonium) sulphate | 10039-54-0 | 233-118-8 |
| European Inventory of Existing Commercial Chemical Substances (EINECS) |                                |            | Listed.   |
| EC Inventory                                                           |                                |            | Listed.   |
| United States Toxic Substances Control Act (TSCA) Inventory            |                                |            | Listed.   |
| China Catalog of Hazardous chemicals 2015                              |                                |            | Listed.   |
| New Zealand Inventory of Chemicals (NZIoC)                             |                                |            | Listed.   |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS)     |                                |            | Listed.   |

|                                                                          |         |
|--------------------------------------------------------------------------|---------|
| Vietnam National Chemical Inventory                                      | Listed. |
| Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) | Listed. |
| Korea Existing Chemicals List (KECL)                                     | Listed. |

## SECTION 16: Other information

### Information on revision

Creation Date July 15, 2019

Revision Date May 20, 2024

### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

### References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

### Other Information

Depending on the degree of exposure, periodic medical examination is suggested. Specific treatment is necessary in case of poisoning with this substance; the appropriate means with instructions must be available.

**Any questions regarding this SDS, Please send your inquiry to [info@cato-chem.com](mailto:info@cato-chem.com)**

*Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product.*