

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
Issued: 2024-02-02  
Replaces SDS: 2021-04-29



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

### 1.1. Product identifier

**Trade name**

Hydroxylamine sulfate

**CAS number**

10039-54-0

**EC number**

233-118-8

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

**Relevant identified uses**

Research and development. Laboratory Chemicals. Manufacture of substances.

**Not suitable for use in**

Not suitable for human consumption or veterinary purposes.

### 1.3. Details of the supplier of the safety data sheet

**Supplier**

Molekula Group

Address

Molekula Ltd, Lingfield Way, Darlington,  
DL1 4XX Darlington  
United Kingdom

Telephone

+44 (0) 3302 000 333

Email

info@molekula.com

Web site

www.molekula.com

**Contact person**

Kevin Banks

**Email**

+44 (0) 7769276927

### 1.4. Emergency telephone number

**Poison center/Additional emergency number**

0344 892 0111 - National Poisons Information Service (Newcastle Centre)

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
 Issued: 2024-02-02  
 Replaces SDS: 2021-04-29



## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

#### Classification

Carcinogenicity, hazard category 2  
 Hazardous to the aquatic environment — Acute hazard category 1  
 Skin irritation, hazard category 2  
 Skin sensitisation, hazard category 1  
 Specific Target Organ Toxicity — Repeated exposure, hazard category 2  
 Eye irritation, hazard category 2  
 Acute toxicity, oral, hazard category 4  
 Acute toxicity, dermal, hazard category 4  
 Corrosive to metals, hazard category 1

#### Hazard statements

H290, H302 + H312, H315, H317, H319, H351, H373, H400

### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

#### Hazard pictograms



#### Signal word

Warning

#### Hazard statements

H290 May be corrosive to metals.  
 H302 + H312 Harmful if swallowed or in contact with skin.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H351 Suspected of causing cancer.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H400 Very toxic to aquatic life.

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
 Issued: 2024-02-02  
 Replaces SDS: 2021-04-29



## Precautionary statements

P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P261 Avoid breathing dust/fumes/gas/mist/vapours/spray.  
 P264 Wash skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P312 Call a POISON CENTER/doctor if you feel unwell.  
 P314 Get medical advice/attention if you feel unwell.  
 P321 Specific treatment (see on this label).  
 P330 Rinse mouth.  
 P391 Collect spillage.  
 P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
 P302 + P352 IF ON SKIN: Wash with plenty of water/.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308 + P313 IF exposed or concerned: Get medical advice/attention.  
 P332 + P313 If skin irritation occurs: Get medical advice/attention.  
 P337 + P313 If eye irritation persists: Get medical advice/attention.  
 P405 Store locked up.  
 P501 Dispose of contents/container to local regulations.  
 P362 + P364 Take off contaminated clothing and wash it before reuse.  
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

## 2.3. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrases M factor acute M factor chronic	Note
bis(hydroxylammonium) sulfate; hydroxylamine sulfate (2:1)	10039-54-0 233-118-8  01-2119485971-25 612-123-00-2	100%	Met. Corr. 1, Acute Tox. 4 - oral, Acute Tox. 4 - dermal, Skin Irrit. 2, Skin Sens. 1, Eye Irrit. 2, Carc. 2, STOT RE 2, Aquatic Acute 1	H290, H302, H312, H315, H317, H319, H351, H373, H400 - -	-

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
 Issued: 2024-02-02  
 Replaces SDS: 2021-04-29



## Molecular weight

164.13832

## Substance additional information

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

IF exposed or concerned: Get medical advice/attention. First aiders/ medical personnel need to protect themselves. Show this Safety Data Sheet (SDS) to medical personnel.

#### Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing stops, provide artificial respiration. For breathing difficulties oxygen may be necessary.

#### Skin contact

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Immediately call a POISON CENTER/doctor. If skin irritation or rash occurs: Get medical advice/attention.

#### Eye contact

Remove contact lenses if present. Rinse eyes with water. Continue to rinse for at least 15 minutes and seek medical attention. Do not rub eye. Immediately flush with plenty of water and continue flushing during transport to hospital. Bring these instructions.

#### Ingestion

IF SWALLOWED: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only if the persons are fully conscious and awake). Administer activated charcoal (20 - 40g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

#### Information for doctors

No data available.

### 4.2. Most important symptoms and effects, both acute and delayed

The severity of the symptoms described will vary dependant of the concentration and the length of exposure. Causes burns by all exposure routes.

See section 11 for more detailed information on health effects and symptoms.

#### Inhalation

Single exposure may cause the following adverse effects: Causes severe burns. Difficulty in breathing. Unconsciousness, possibly death.

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
 Issued: 2024-02-02  
 Replaces SDS: 2021-04-29



## **Skin contact**

Single exposure may cause the following adverse effects: Causes severe burns. Blistering may occur. May be absorbed in the body and cause dizziness, nausea and vomiting. Unconsciousness, death.

## **Eye contact**

Single exposure may cause the following adverse effects: Causes serious eye damage. Unconsciousness, possibly death.

## **Ingestion**

Single exposure may cause the following adverse effects: Severe abdominal pain. May cause severe internal injury. Unconsciousness, possibly death.

### **4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically. Immediately call a POISON CENTER/doctor.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. Use fire-extinguishing media appropriate for surrounding materials.

#### **Unsuitable extinguishing media**

Do not use water jet as an extinguisher, as this will spread the fire.

### **5.2. Special hazards arising from the substance or mixture**

Specific hazards: Corrosive.

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

Nitrous gases (NO<sub>x</sub>).

Sulphurous gases (SO<sub>x</sub>).

### **5.3. Advice for firefighters**

#### **Special protective equipment for fire-fighters**

Evacuate area. Avoid breathing gas, fume, vapours or spray. Prevent skin contact by maintaining a safe distance and by wearing suitable protective equipment/ clothing. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

## **SECTION 6: Accidental release measures**

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

Do not breathe vapour/spray. Avoid contact with skin and eyes. For personal protection, see section 8.

In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
 Issued: 2024-02-02  
 Replaces SDS: 2021-04-29



## 6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

## 6.3. Methods and material for containment and cleaning up

Collect with absorbent, non-combustible material into suitable containers.

## 6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Preventive handling precautions

For precautions see section 2.2. Work under hood. Take action to prevent static discharges. Wear protective clothing, gloves, eye and face protection. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

#### General hygiene

Observe good chemical hygiene practices. Keep away from food, drink and animal feeding stuffs. Wash contaminated skin thoroughly after handling. Do not eat, drink or smoke when using this product. Remove contaminated clothing and launder thoroughly before re-use.

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

Store in a dry place. Store in a closed container.

Store under inert gas. Store at ambient temperature.

Protect containers from damage. Air sensitive.

### 7.3. Specific end use(s)

No specific usage precautions noted.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No data available

### 8.2. Exposure controls

#### Personal Protective Equipment Symbols



#### Eye / face protection

Wear eye protection.

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
 Issued: 2024-02-02  
 Replaces SDS: 2021-04-29



## Hand protection

Wear protective gloves. Recommended gloves: Nitrile.

Glove Thickness: 0.11mm

Breakthrough time: 8 hours

Always inspect gloves before use. If signs of wear and tear are noticed then the gloves should be replaced.

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. Wash contaminated skin thoroughly after handling.

## Other skin protection

Wash skin thoroughly after handling.

## Respiratory protection

Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided.

## Environmental exposure controls

Avoid discharge into drains.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Physical state

Solid

#### Colour

White.

#### Odour

No data available

#### Melting point / freezing point

170 °C

#### Boiling point or initial boiling point and boiling range

No data available

#### Flammability

No data available

#### Lower and upper explosion limit

No data available

#### Flash point

No data available

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
Issued: 2024-02-02  
Replaces SDS: 2021-04-29



## Auto-ignition temperature

No data available

## Decomposition temperature

No data available

## pH

No data available

## Kinematic viscosity

No data available

## Solubility

No data available

## Partition coefficient n-octanol/water

No data available

## Vapour pressure

No data available

## Density and/or relative density

No data available

## Relative vapour density

No data available

## Particle characteristics

No data available

## 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

Stable under the prescribed storage conditions.



According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
 Issued: 2024-02-02  
 Replaces SDS: 2021-04-29



## 10.3. Possibility of hazardous reactions

Violent reactions possible with:

nitrites

nitrates

powdered Metals.

Exothermic reaction with:

oxidising agents

Aldehydes.

Ketones.

A risk of explosion and/or of toxic gas formation exists with the following substances:

Bases.

## 10.4. Conditions to avoid

strong heating

## 10.5. Incompatible materials

Strong oxidising agents.

## 10.6. Hazardous decomposition products

See section 5.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Product / Substance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Test animals
bis(hydroxylammonium) sulfate; hydroxylamine sulfate (2:1) 10039-54-0 / 233-118-8	LD50	842 mg/kg	Oral	Rat
bis(hydroxylammonium) sulfate; hydroxylamine sulfate (2:1) 10039-54-0 / 233-118-8	LD50	1500-2000 mg/kg	Dermal	Rabbit

#### Skin corrosion/irritation

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
Issued: 2024-02-02  
Replaces SDS: 2021-04-29



Product / Substance name CAS / EC no.	Result
bis(hydroxylammonium) sulfate; hydroxylamine sulfate (2:1) 10039-54-0 / 233-118-8	Prolonged skin contact may cause skin irritation and/or dermatitis.

## Aspiration hazard

Based on available data, the classification criteria are not met.

## 11.2. Information on other hazards

No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Acute fish toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
bis(hydroxylammonium) sulfate; hydroxylamine sulfate (2:1) 10039-54-0 / 233-118-8	LC50	1-10 mg/l	96 hours	Pimephales promelas (Fat-head Minnow)

#### Acute algae toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
bis(hydroxylammonium) sulfate; hydroxylamine sulfate (2:1) 10039-54-0 / 233-118-8	IC50	0.86 mg/l	96 hours	Desmodesmus subspicatus (green algae)

#### Acute crustacean toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
bis(hydroxylammonium) sulfate; hydroxylamine sulfate (2:1)	EC50	1.62 mg/l	48 hours	Daphnia magna

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
 Issued: 2024-02-02  
 Replaces SDS: 2021-04-29



Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
10039-54-0 / 233-118-8				

## 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. Results of PBT and vPvB assessment

No data available

## 12.6. Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors.

## 12.7. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal considerations

Dispose of contents/container in accordance with local/regional/national/international regulations.

## SECTION 14: Transport information

### 14.1. UN number

2865

### 14.2. UN proper shipping name

#### ADR / RID / ADN proper shipping name

HYDROXYLAMINE SULPHATE

#### IMDG proper shipping name

HYDROXYLAMINE SULPHATE

#### IATA proper shipping name

Hydroxylamine sulphate

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
 Issued: 2024-02-02  
 Replaces SDS: 2021-04-29



## 14.3. Transport hazard class(es)

### Label

ADR/RID/ADN



8 Environmental hazard

IMDG



8 Environmental hazard

IATA



8 Environmental hazard

### ADR / RID Class

8

### ADR / RID Classification code

C2

### ADR / RID hazard identification number

80

### IMDG Class

8

### IATA Class

8

### ADN Class

8

### ADN Class Code

C2

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
 Issued: 2024-02-02  
 Replaces SDS: 2021-04-29



## 14.4. Packing group

ADR / RID / ADN: III

IMDG: III

IATA: III

## 14.5. Environmental hazards

Not applicable

## 14.6. Special precautions for user

### Special precautions for user

Tunnel restriction code: E

Transport category: 3

### IMDG EmS

F-A, S-B

## 14.7. Maritime transport in bulk according to IMO instruments

IBC Instruction: IBC08

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

This material safety data sheet complies with the requirements of Regulation (EU) 2020/878.

#### National regulations

Directive: 2012/18/EU: E1 ENVIRONMENTAL HAZARDS

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

# Hydroxylamine sulfate

Version number: 2  
Issued: 2024-02-02  
Replaces SDS: 2021-04-29



## SECTION 16: Other information

### Phrase meaning

Carc. 2 - Carcinogenicity, hazard category 2

Aquatic Acute 1 - Hazardous to the aquatic environment — Acute hazard category 1

Skin Irrit. 2 - Skin irritation, hazard category 2

Skin Sens. 1 - Skin sensitisation, hazard category 1

STOT RE 2 - Specific Target Organ Toxicity — Repeated exposure, hazard category 2

Eye Irrit. 2 - Eye irritation, hazard category 2

Acute Tox. 4 - oral - Acute toxicity, oral, hazard category 4

Acute Tox. 4 - dermal - Acute toxicity, dermal, hazard category 4

Met. Corr. 1 - Corrosive to metals, hazard category 1

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H302 + H312 Harmful if swallowed or in contact with skin.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.