

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**
**Product Identifier**

**Perihalan Produk:** **HIDROKSILAMINA SULFAT**  
**Product Description:** **Hydroxylamine sulfate**  
**Cat No. :** 198530000; 198530010; 198530050; 198530051; 198531000  
**Synonyms** Hydroxylammonium sulfate  
**CAS No** 10039-54-0  
**Molecular Formula** H6 N2 O2 . H2 S O4

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

**Recommended Use** Laboratory chemicals.  
**Uses advised against** No Information available

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**SECTION 2: HAZARDS IDENTIFICATION**
**Classification of the substance or mixture**

Substances/mixtures corrosive to metal	Category 1 (H290)
Acute oral toxicity	Category 4 (H302)
Acute dermal toxicity	Category 4 (H312)
Skin Corrosion/Irritation	Category 2 (H315)
Serious Eye Damage/Eye Irritation	Category 2 (H319)
Skin Sensitization	Category 1 (H317)
Carcinogenicity	Category 2 (H351)
Specific target organ toxicity - (repeated exposure)	Category 2 (H373)
Acute aquatic toxicity	Category 1 (H400)

**Label Elements**

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## Signal Word

## Warning

### Hazard Statements

H290 - May be corrosive to metals  
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  
H302 + H312 - Harmful if swallowed or in contact with skin

### Precautionary Statements

#### Prevention

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P234 - Keep only in original packaging  
P264 - Wash face, hands and any exposed 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  
P280 - Wear protective gloves/protective clothing/eye protection/face protection

#### Response

P302 + P352 - IF ON SKIN: Wash with plenty of soap and 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  
P312 - Call a POISON CENTER or doctor if you feel unwell  
P330 - Rinse mouth  
P390 - Absorb spillage to prevent material damage  
P362 + P364 - Take off contaminated clothing and wash it before reuse

#### Storage

P406 - Store in corrosion resistant polypropylene container with a resistant liner

#### Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

### Other Hazards

EUH044 - Risk of explosion if heated under confinement

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Hydroxylamine sulfate	10039-54-0	>95

## SECTION 4: FIRST AID MEASURES

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## Description of first aid measures

### **General Advice**

If symptoms persist, call a physician.

### **Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

### **Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

### **Ingestion**

Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

### **Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

### **Self-Protection of the First Aider**

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

None reasonably foreseeable. 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.

## Indication of any immediate medical attention and special treatment needed

### **Notes to Physician**

Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing media

#### **Suitable Extinguishing Media**

Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

#### **Extinguishing media which must not be used for safety reasons**

No information available.

### Special hazards arising from the substance or mixture

Containers may explode when heated. Risk of explosion by shock, friction, fire or other sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Do not allow run-off from fire-fighting to enter drains or water courses. Dust can form an explosive mixture with air.

### **Hazardous Combustion Products**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), Sulfur oxides.

### Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.

### Environmental precautions

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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.

## **Methods and Material for Containment and Cleaning Up**

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

## **Reference to Other Sections**

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

### **Precautions for Safe Handling**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

### **Conditions for Safe Storage, Including any Incompatibilities**

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

### **Specific End Uses**

Use in laboratories.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control Parameters**

### **Exposure Controls**

#### **Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### **Personal protective equipment**

##### **Eye Protection**

Goggles

##### **Hand Protection**

Protective gloves

##### **Skin and body protection**

Long sleeved clothing

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

##### **Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

##### **Recommended Filter type:**

Particulates filter conforming to EN 143

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To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly  
When RPE is used a face piece Fit Test should be conducted

## Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

## Environmental exposure controls

Prevent product from entering drains Do not allow material to contaminate ground water system Local authorities should be advised if significant spillages cannot be contained

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	White	
Physical State	Solid	
Odor	Odorless	
Odor Threshold	No data available	
pH	3.6 @ 20°C	10 g/L aq.sol
Melting Point/Range	170 °C / 338 °F	
Softening Point	No data available	
Boiling Point/Range	No information available	
Flash Point	No information available	Method - No information available
Evaporation Rate	Not applicable	Solid
Flammability (solid,gas)	No information available	
Explosion Limits	No data available	
Vapor Pressure	negligible	
Vapor Density	Not applicable	Solid
Specific Gravity / Density	No data available	
Bulk Density	No data available	
Water Solubility	329 g/L (20°C)	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
Hydroxylamine sulfate	-2.7	
Autoignition Temperature	No data available	
Decomposition Temperature	> 170°C	
Viscosity	Not applicable	Solid
Explosive Properties	No information available	
Oxidizing Properties	No information available	
Molecular Formula	H6 N2 O2 . H2 S O4	
Molecular Weight	164.14	

## SECTION 10: STABILITY AND REACTIVITY

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## Reactivity

None known, based on information available.

## Chemical Stability

Hygroscopic.

## Possibility of Hazardous Reactions

### **Hazardous Polymerization Hazardous Reactions**

Hazardous polymerization does not occur.  
None under normal processing.

## Conditions to Avoid

Incompatible products. Excess heat. Avoid dust formation. Keep away from open flames, hot surfaces and sources of ignition. Exposure to moist air or water.

## Incompatible Materials

Strong oxidizing agents. Heavy metals.

## Hazardous Decomposition Products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>). Sulfur oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### **Product Information**

##### **(a) acute toxicity;**

**Oral**

Category 4

**Dermal**

Category 4

**Inhalation**

Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydroxylamine sulfate	LD50 = 842 mg/kg ( Rat )	LD50 = 1500-2000 mg/kg ( Rabbit )	-

##### **(b) skin corrosion/irritation;**

Category 2

##### **(c) serious eye damage/irritation;**

Category 2

##### **(d) respiratory or skin sensitization;**

**Respiratory**

No data available

**Skin**

Category 1

May cause sensitization by skin contact

##### **(e) germ cell mutagenicity;**

No data available

##### **(f) carcinogenicity;**

Category 2

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Limited evidence of a carcinogenic effect

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; Category 2

Target Organs Eyes, Skin.

(j) aspiration hazard; Not applicable  
Solid

**Symptoms / effects, both acute and delayed** 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.

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity effects** Very toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Hydroxylamine sulfate	LC50 = 3.2-7.3 mg/L/96h (Fathead minnow)	EC50: = 1.62 mg/L, 48h (Daphnia magna)	EC50: = 0.86 mg/L, 96h (Desmodesmus subspicatus) EC50: = 0.72 mg/L, 72h (Desmodesmus subspicatus)	

### Persistence and degradability

**Persistence** Soluble in water, Persistence is unlikely, based on information available.  
**Degradation in sewage treatment plant** Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**Bioaccumulative potential** Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Hydroxylamine sulfate	-2.7	No data available

**Mobility in soil** The product is water soluble, and may spread in water systems. . Will likely be mobile in the environment due to its water solubility. Highly mobile in soils.

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

**Other adverse effects** No information available

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## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

#### **Waste from Residues/Unused Products**

Should not be released into the environment Waste is classified as hazardous Dispose of in accordance with the European Directives on waste and hazardous waste Dispose of in accordance with local regulations

#### **Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point.

#### **Other Information**

Do not flush to sewer Waste codes should be assigned by the user based on the application for which the product was used Do not empty into drains Do not let this chemical enter the environment

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

UN-No UN2865  
Hazard Class 8  
Packing Group III  
Proper Shipping Name HYDROXYLAMINE SULPHATE

### Road and Rail Transport

UN-No UN2865  
Hazard Class 8  
Packing Group III  
Proper Shipping Name HYDROXYLAMINE SULPHATE

### IATA

UN-No UN2865  
Hazard Class 8  
Packing Group III  
Proper Shipping Name HYDROXYLAMINE SULPHATE

#### **Special Precautions for User**

No special precautions required

## SECTION 15: REGULATORY INFORMATION

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

#### **International Inventories**

X = listed

Component	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	IECSC	AICS	KECL
Hydroxylamine sulfate	233-118-8	X	X	X	X	X	X	X	KE-03210

### National Regulations

#### **Persistent Organic Pollutant Ozone Depletion Potential**

This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

## SECTION 16: OTHER INFORMATION

ACR19853



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## Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**POW** - Partition coefficient Octanol:Water

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

## **Key literature references and sources for data**

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**Revision Date**

21-Mar-2025

**Revision Summary**

Not applicable.

**In accordance with local and national regulations: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013**

## **Disclaimer**

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

**End of Safety Data Sheet**