# Chemical Safety Data Sheet MSDS / SDS

# Hydroxylamine sulfate

Revision Date: 2025-09-27 Revision Number: 1

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

#### **Product identifier**

Product name : Hydroxylamine sulfate

CBnumber : CB8205115

CAS : 10039-54-0

EINECS Number : 233-118-8

Synonyms: Hydroxylamine Sulfate, HYDROXYLAMINE SULPHATE

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

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.

Uses advised against : none

# **Company Identification**

Company : Chemicalbook

Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing

Telephone : 010-86108875

# SECTION 2: Hazards identification

# GHS Label elements, including precautionary statements

Symbol(GHS)		
Signal word	Warning	

## Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P234 Keep only in original container.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly 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.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P307+P311 IF exposed: call a POISON CENTER or doctor/physician.

P390 Absorb spillage to prevent material damage.

P391 Collect spillage. Hazardous to the aquatic environment

P405 Store locked up.

P406 Store in corrosive resistant/... container with a resistant inner liner.

P501 Dispose of contents/container to.....

#### Hazard statements

H290 May be corrosive to metals

H301 Toxic if swalloed

H302 Harmful if swallowed

H312 Harmful in contact with skin

H314 Causes severe skin burns and eye damage

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H351 Suspected of causing cancer

H370 Causes damage to organs

H371 May cause damage to organs

H373 May cause damage to organs through prolonged or repeated exposure

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

H412 Harmful to aquatic life with long lasting effects

# SECTION 3: Composition/information on ingredients

# Substance

Product name : Hydroxylamine sulfate

Synonyms : Hydroxylamine Sulfate,HYDROXYLAMINE SULPHATE

CAS : 10039-54-0

EC number : 233-118-8

MF : H2O4S.2H3NO

MW : 164.14

# SECTION 4: First aid measures

# Description of first aid measures

# General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Call in physician.

## In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

# Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

# **SECTION 5: Firefighting measures**

# **Extinguishing media**

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

# Special hazards arising from the substance or mixture

Nitrogen oxides (NOx) Sulfur oxides

Not combustible.

In the event of decomposition: danger of explosion! Risk of dust explosion.

Ambient fire may liberate hazardous vapours. Avoid shock and friction.

## Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## **Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

# **NFPA 704**

0

2 2

HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. <u>diethyl</u> <u>ether</u> , ammonium phosphate, iodine)
FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
REACT	2	Undergoes violent chemical change at elevated temperatures and pressures, reacts violently with water, or may form explosive mixtures with water (e.g. white phosphorus, potassium, sodium)
SPEC. HAZ.		

# SECTION 6: Accidental release measures

# Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

# **Environmental precautions**

Do not let product enter drains.

# Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

#### Reference to other sections

For disposal see section 13.

# SECTION 7: Handling and storage

# Precautions for safe handling

# Advice on safe handling

For precautions see section 2.2.

Work under hood. Do not inhale substance/mixture.

# Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

# Conditions for safe storage, including any incompatibilities

# Storage conditions

Tightly closed. Dry.

# Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

# SECTION 8: Exposure controls/personal protection

## control parameter

# Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

## **Exposure controls**

## Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested: KCL 741 Dermatril? L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested: KCL 741 Dermatril? L

**Body Protection** 

protective clothing

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

# SECTION 9: Physical and chemical properties

# Information on basic physicochemical properties

Appearance	solid
Odour	No data available
Odour Threshold	No data available
рН	3.6 (10g/l, H2O, 20℃)
Melting point/freezing point	Melting point/range: 170 °C - dec.
Initial boiling point and boiling range	56.5℃
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive	No data available
limits	
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	water: soluble(lit.)
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available

# Other safety information

No data available

# SECTION 10: Stability and reactivity

# Reactivity

sensitive to shock

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

# **Chemical stability**

The product is chemically stable under standard ambient conditions (room temperature) .

# Possibility of hazardous reactions

Violent reactions possible with:

nitrites nitrates

Powdered metals Exothermic reaction with:

Oxidizing agents Aldehydes Ketones

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

## Conditions to avoid

no information available

Strong heating (explosive decomposition).

# Incompatible materials

Metals

# Hazardous decomposition products

In the event of fire: see section 5

# **SECTION 11: Toxicological information**

# Information on toxicological effects

## **Acute toxicity**

LD50 Oral - Rat - 842 mg/kg

Remarks: (RTECS)Symptoms: Irritations, Stomach/intestinal disorders, muscle twitching,

Convulsions, Coma absorption

Symptoms: Possible damages:, mucosal irritations

LD50 Dermal - Rabbit - male and female - 1.500 - 2.000 mg/kg (OECD Test Guideline 402)

Symptoms: Allergic reactions Dermal: absorption

# Skin corrosion/irritation

Dermatitis

## Serious eye damage/eye irritation Respiratory or skin sensitization

## Germ cell mutagenicity

## Carcinogenicity

No data available

#### Reproductive toxicity

## Specific target organ toxicity - single exposure Specific target organ toxicity - repeated exposure

Ingestion - May cause damage to organs through prolonged or repeated exposure. - Blood

#### **Aspiration hazard**

#### **Toxicity**

LD50 orally in Rabbit: 842 mg/kg LD50 dermal Rabbit 1500 - 2000 mg/kg

# SECTION 12: Ecological information

# **Toxicity**

## Toxicity to fish

LC50 - Pimephales promelas (fathead minnow) - 1 - 10 mg/l - 96 h Remarks: (External MSDS)

## Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 1,62 mg/l - 48 h Remarks: (External MSDS)

## Toxicity to algae

IC50 - Desmodesmus subspicatus (green algae) - 0,86 mg/l - 96 h Remarks: (External MSDS)

# Persistence and degradability

# Bioaccumulative potential

# Mobility in soil

# Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### Other adverse effects

Discharge into the environment must be avoided.

# **SECTION 13: Disposal considerations**

## Waste treatment methods

## **Product**

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

# **SECTION 14: Transport information**

#### **UN** number

ADR/RID: 2865 IMDG: 2865 IATA: 2865

# **UN proper shipping name**

ADR/RID: HYDROXYLAMINE SULPHATE IMDG: HYDROXYLAMINE SULPHATE

IATA: Hydroxylamine sulphate

14.3	Transport hazard class(es)	
14.3	ADR/RID: 8 IMDG: 8	IATA: 8
14.4	Packaging group	
14.4	ADR/RID: III IMDG: III	IATA: III
14.5	Environmental hazards	
14.5	ADR/RID: yes IMDG Marine pollutant: yes	IATA: no

Special precautions for user

# **SECTION 15: Regulatory information**

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

# Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

#### Measures for Environmental Management of New Chemical Substances

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

# SECTION 16: Other information

#### 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

- [1] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- [2] ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- [3] ECHA European Chemicals Agency, website: https://echa.europa.eu/
- [4] eChemPortal The Global Portal to Information on Chemical Substances by OECD, website:

http://www.echemportal.org/echemportal/index?pageID=0&request\_locale=en

- [5] ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- [6] Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
- [7] HSDB Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- [8] IARC International Agency for Research on Cancer, website: http://www.iarc.fr/

[9] IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】 Sigma-Aldrich, website: https://www.sigmaaldrich.com/

## 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.

#### Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.