

## Chemical Safety Data Sheet MSDS / SDS

## Silver nitrate SDS

Revision Date:2024-04-25 Revision Number:1

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product identifier**

Product name: Silver nitrate  
CAS: 7761-88-8

**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.in  
Address: 5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090  
Telephone: +91 9550333722

**SECTION 2: Hazards identification****Classification of the substance or mixture**

Oxidizing solids, Category 2  
Skin corrosion, Sub-category 1B

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

### GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Danger

### Hazard statement(s)

H272 May intensify fire; oxidizer  
H314 Causes severe skin burns and eye damage  
H410 Very toxic to aquatic life with long lasting effects

### Precautionary statement(s)

### Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P220 Keep away from clothing and other combustible materials.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash ... thoroughly after handling.  
P273 Avoid release to the environment.

### Response

P370+P378 In case of fire: Use ... to extinguish.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P363 Wash contaminated clothing before reuse.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P316 Get emergency medical help immediately.  
P321 Specific treatment (see ... on this label).  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P391 Collect spillage.

### Storage

P405 Store locked up.

## Disposal

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.

## Other hazards which do not result in classification

no data available

## SECTION 3: Composition/information on ingredients

### Substance

Chemical name: Silver nitrate

Common names and synonyms: Silver nitrate

CAS number: 7761-88-8

EC number: 231-853-9

Concentration: 100%

## SECTION 4: First aid measures

### Description of necessary first-aid measures

#### If inhaled

Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.

#### Following skin contact

First rinse with plenty of water for at least 15 minutes, then remove contaminated clothes and rinse again. 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. Do NOT induce vomiting. Refer for medical attention .

**Most important symptoms/effects, acute and delayed**

no data available

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

no data available

**SECTION 5: Firefighting measures**

**Suitable extinguishing media**

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

**Specific hazards arising from the chemical**

Not combustible but enhances combustion of other substances. Gives off irritating or toxic fumes (or gases) in a fire.

**Special protective actions for fire-fighters**

Use water in large amounts. In case of fire in the surroundings, use appropriate extinguishing media. In case of fire: keep drums, etc., cool by spraying with water.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Personal protection: complete protective clothing including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Sweep spilled substance into covered sealable containers. If appropriate, moisten first to prevent dusting. Wash away remainder with plenty of water. Do NOT absorb in saw-dust or other combustible absorbents.

**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.

**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.

## SECTION 7: Handling and storage

### Precautions for safe handling

NO contact with flammables. 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.

### Conditions for safe storage, including any incompatibilities

Separated from combustible substances and reducing agents. See Chemical Dangers. Keep in the dark. Well closed. Store in an area without drain or sewer access. Provision to contain effluent from fire extinguishing.

## SECTION 8: Exposure controls/personal protection

### Control parameters

### Occupational Exposure limit values

TLV: 0.01 mg/m<sup>3</sup>, as TWA.EU-OEL: (as Ag): 0,01 mg/m<sup>3</sup> as TWA.MAK: (inhalable fraction): 0.01 mg/m<sup>3</sup>; peak limitation category: I(2); pregnancy risk group: D

### Biological limit values

no data available

### 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.

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

#### Eye/face protection

Wear face shield or eye protection in combination with breathing protection if powder.

#### Skin protection

Protective gloves. Protective clothing.

#### **Respiratory protection**

Use local exhaust or breathing protection.

#### **Thermal hazards**

no data available

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

Physical state: Colorless or white solid

Colour: no data available

Odour: no data available

Melting point/freezing point: 212°C

Boiling point or initial boiling point and boiling range: 444°C

Flammability: no data available

Lower and upper explosion limit/flammability limit: no data available

Flash point: 40°C

Auto-ignition temperature: no data available

Decomposition temperature: no data available

pH: no data available

Kinematic viscosity: no data available

Solubility:	In water: 219 g/100 mL (20 °C)
Partition coefficient n-octanol/water:	no data available
Vapour pressure:	no data available
Density and/or relative density:	4.35g/mL at 25°C (lit.)
Relative vapour density:	5.8 (vs air)
Particle characteristics:	no data available

## SECTION 10: Stability and reactivity

### Reactivity

no data available

### Chemical stability

no data available

### Possibility of hazardous reactions

Decomposes on heating. This produces toxic fumes including nitrogen oxides. The substance is a strong oxidant. It reacts violently with combustible and reducing materials. Reacts with incompatible substances such as acetylene, alkalies and halides and many other compounds. This generates fire and explosion hazard. Attacks some forms of plastic, rubber and coatings.

### Conditions to avoid

no data available

### Incompatible materials

no data available

### Hazardous decomposition products

no data available

## **SECTION 11: Toxicological information**

### **Acute toxicity**

Oral: no data available

Inhalation: no data available

Dermal: no data available

### **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 corrosive to the eyes, skin and respiratory tract. Corrosive on ingestion. The substance may cause effects on the blood. This may result in the formation of methaemoglobin. The effects may be delayed. Medical observation is indicated.



### **STOT-repeated exposure**

The substance may have effects on the blood. This may result in the formation of methaemoglobin. The substance may cause a grey discolouration of the eyes and skin. The substance may cause a brown discolouration of the fingernails.

### **Aspiration hazard**

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly on spraying or when dispersed, especially if powdered.

## **SECTION 12: Ecological information**

### **Toxicity**

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

### **Persistence and degradability**

no data available

### **Bioaccumulative potential**

no data available

### **Mobility in soil**

no data available

### **Other adverse effects**

no data available

## **SECTION 13: Disposal considerations**

## 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

### UN Number

ADR/RID: UN1493 (For reference only, please check.)

IMDG: UN1493 (For reference only, please check.)

IATA: UN1493 (For reference only, please check.)

### UN Proper Shipping Name

ADR/RID: SILVER NITRATE (For reference only, please check.)

IMDG: SILVER NITRATE (For reference only, please check.)

IATA: SILVER NITRATE (For reference only, please check.)

### Transport hazard class(es)

ADR/RID: 5.1 (For reference only, please check.)

IMDG: 5.1 (For reference only, please check.)

IATA: 5.1 (For reference only, please check.)

### Packing group, if applicable

ADR/RID: II (For reference only, please check.)

IMDG: II (For reference only, please check.)

IATA: II (For reference only, please check.)

### Environmental hazards

ADR/RID: Yes  
IMDG: Yes  
IATA: Yes

**Special precautions for user**

no data available

**Transport in bulk according to IMO instruments**

no data available

**SECTION 15: Regulatory information**

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

**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.

**(PICCS)**

Listed.

**Vietnam National Chemical Inventory**

Listed.

IECSC)

Listed.

**Korea Existing Chemicals List (KECL)**

Listed.

## 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

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. Rinse contaminated clothing with plenty of water because of fire hazard.

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