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**Safety Data Sheet**

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Product Name	Silver sulfate
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**Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identification:****Product Description:** Silver sulfate**Synonyms:** None**CAS-No:** 10294-26-5**EC-No.:** 233-653-7**Molecular Formula:** Ag<sub>2</sub>SO<sub>4</sub>**REACH Registration No:** A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.**1.2. Relevant identified uses of the substance or mixture and uses advised against:****Recommended Use:** Laboratory chemicals**Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**  
184-186/P, Chacharwadi Vasna,  
Sarkhej-Bavla Highway,  
Ta.: Sanand, Dist.: Ahmedabad-382110, Gujarat, India.  
Web: [www.finarchemicals.com](http://www.finarchemicals.com)
- **E-Mail Address** [safety.finar@aceto.com](mailto:safety.finar@aceto.com); [info.finar@aceto.com](mailto:info.finar@aceto.com)

**1.3. Emergency Telephone Number:**

- For Emergency contact on: +91 - 2717 - 616 717

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**SECTION 2: HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture:**

**Classification according to Regulation (EC) No 1272/2008**

Serious eye damage (Category 1), H318

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2. Label Elements:**

**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms



**Signal word: Danger**

**Hazard statements**

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P280 Wear eye protection/ face protection.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do.

Continue rinsing. Immediately call a POISON CENTER/doctor.

**Supplemental Hazard Statements**

None

**2.3. Other Hazards:**

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.

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substances:** Silver sulfate

**3.2. Mixtures:**

<b>Component</b>	<b>CAS-No</b>	<b>EC-No.</b>	<b>Weight %</b>
Silver sulfate	10294-26-5	233-653-7	>98 %

**SECTION 4: FIRST AID MEASURES**

**4.1. Description of first aid measures:**

- **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

- **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

- **If case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

- **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

- **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Consult a physician.

**4.2. Most important symptoms and effects, both acute and delayed:**

Irritation and corrosion

Risk of serious damage to eyes.

Risk of permanent damage due to staining of the cornea.

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

No data available

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**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media:**

**Suitable Extinguishing Media-** Use water Spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable Extinguishing Media-** For this substance/mixture no limitations of extinguishing agents are given.

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

Not Combustible.

Ambient fire may liberate hazardous vapours.

Fire may cause evolution of: Sulphur oxides, silver oxides

**5.3. Advice for firefighters:**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 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.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

**6.2. Environmental precautions:**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

**6.3. Methods and material for containment and cleaning up:**

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

**6.4. Reference to other sections:**

For disposal see Sections 13.

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**SECTION 7: HANDLING AND STORAGE**

**7.1. Precautions for safe handling:**

Avoid formation of dust and aerosols.  
 Provide appropriate exhaust ventilation at places where dust is formed.  
 For precautions see section 2.2.

**7.2. Conditions for safe storage, including any incompatibilities:**

Keep container tightly closed in a dry and well-ventilated place.

**7.3. 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**

**8.1. Control parameters:**

**Components with workplace control parameters**

**8.2. Exposure Controls:**

- Appropriate Engineering Controls:**

Handle in accordance with good industrial hygiene and safety practice.  
 Wash hands before breaks and at the end of workday.

**Personal Protective Equipment:**

**Eye & Face Protection-**

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

**Skin Protection-**

Handle with gloves. Gloves must be inspected prior to use.  
 Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.  
 Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.  
 The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

**Full contact-**

Material: Nitrile rubber

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Minimum layer thickness: 0.11 mm  
 Break through time: 480 min  
 Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

**Splash contact-**

Material: Nitrile rubber  
 Minimum layer thickness: 0.11 mm  
 Break through time: 480 min  
 Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail [sales@kcl.de](mailto:sales@kcl.de),  
 test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Body Protection-**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory Protection-**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Environmental Exposure Controls-**

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

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties:**

- **Appearance:** White
- **Physical State:** Solid
- **Odor:** Odourless
- **Odor Threshold:** No data available
- **pH:** 5 to 6 at 5 g/l 25°C
- **Melting Point:** 652 °C
- **Critical Temperature:** No data available
- **Vapor Pressure:** No data available
- **Relative Density:** 5.450 g/cm<sup>3</sup>
- **Viscosity Dynamic:** No data available
- **Viscosity Kinematic:** No data available
- **Lower Explosive Limit:** No data available
- **Upper Explosive Limit:** No data available
- **Decomposition Temperature:** > 1,000 °C
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Ionicity (in Water):** No data available
- **Boiling Point/Range:** No data available
- **Flash Point:** No data available
- **Specific Gravity:** 5.5
- **Ignition Temperature:** No data available
- **Water Solubility:** 8 g/l at 25°C

**9.2. Other information:**

- **Molecular Weight:** 311.8 g/mol
- **Molecular Formula:** Ag<sub>2</sub>SO<sub>4</sub>

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**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity:**

No data available

**10.2. Chemical stability:**

Sensitivity to light.

Decomposes on exposure to light.

**10.3. Possibility of hazardous reactions:**

No data available

**10.4. Conditions to avoid:**

Incompatible products.

**10.5. Incompatible materials:**

Strong oxidizing agents.

**10.6. Hazardous decomposition products:**

Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Silver oxides

Other decomposition products - No data available

In the event of fire: see section 5

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects:****Acute toxicity**

LD50 Oral - Rat - male and female - > 5.000 mg/kg

(OECD Test Guideline 401)

Remarks: No data available

**Skin corrosion/irritation**

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

**Serious Eye damage/eye irritation**

Eyes - Rabbit

Result: Corrosive



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(OECD Test Guideline 405)

**Respiratory or Skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

Micronucleus test

Human lymphocytes

Result: negative

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Additional Information:**

Repeated dose toxicity - No data available

RTECS: Not available

May cause argyria (a slate-gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver)., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity:**

**Toxicity to fish:**

Semi-Static test LC50 - Pimephales promelas (fathead minnow) – 0.0017 mg/l - 96 h

**Toxicity daphnia and other aquatic invertebrates:**

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Semi-Static test LC50 - Daphnia (water flea) – 0.00032 mg/l - 48 h

**Toxicity to algae:**

Flow-through test EC10 - Pseudokirchneriella subcapitata (green algae) – 0.00059 mg/l - 24 h

**Toxicity to bacteria:**

No data available

**Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**

No data available

**12.2 Persistence and degradability:**

The methods for determining biodegradability are not applicable to inorganic substances.

**12.3 Bioaccumulate potential:**

Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 8 d at 15 °C(Disilver(1+) sulphate)

Bioconcentration factor (BCF): 2.5

**12.4 Mobility in soil:**

No data available

**12.5 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.

**12.6 Other adverse effects:**

Very toxic to aquatic life with long lasting effects.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods:**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an after burner & scrubber.

**Contaminated packaging**

Dispose of as unused product.

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**SECTION 14: Transport information**

	<b>Land transport (ADR/RID)</b>	<b>Air transport (IATA)</b>	<b>Sea transport (IMDG)</b>
<b>14.1 UN number</b>	UN3077		
<b>14.2 Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (SILVER SULFATE)		
<b>14.3 Class</b>	9		
<b>14.4 Packing group</b>	III		
<b>14.5 Environmentally hazardous</b>	Yes	Yes	Yes
<b>14.6 Special precautions for user</b>	Yes  Tunnel Restriction Code E  Packages smaller than or equal to 5 kg / L, not dangerous goods of Class 9	No  Packages smaller than or equal to 5 kg / L, not dangerous goods of Class 9	Yes  EmS F-A S-F  Packages smaller than or equal to 5 kg / L, not dangerous goods of Class 9
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not Relevant		

**SECTION 15: Regulatory information**

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

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

**15.2 Chemical safety assessment:**

For this product a chemical safety assessment was not carried out.

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**SECTION 16: Other information**

**Full text of H-Statements referred to under sections 2 and 3.**

- H318 Causes serious eye damage.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

**Training advice: -**

Provide adequate information, instruction and training for operators.

**References:** Not available

**Created:** 14/08/2021

**Updated on:** 25/08/2021

**Disclaimer:**

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