



# ZINC SULPHATE HEPTAHYDRATE PURE

## CAS No. 7446-20-0

### Safety Data Sheet

Reference number: 23821

#### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### 1.1 Product identifiers

Product form : Solid  
Trade name : **Zinc Sulphate** Heptahydrate Pure  
Product code : 23821  
CAS No : 7446-20-0  
Synonyms : White Vitriol, Goslarite

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

Identified uses : Laboratory chemicals, Industrial & for professional use only.

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

Company : Auraiya Laboratory Chemicals (P) Ltd  
118 Vijay Nagar Etawah  
Etawah -206001 (U.P.)  
INDIA  
  
Telephone : +91 879 151 1893  
Email : [info@auraiyalabchem.com](mailto:info@auraiyalabchem.com)  
Website : [www.auraiyalabchem.com](http://www.auraiyalabchem.com)

##### 1.4 Emergency telephone number

Emergency Phone # : +91 879 151 1893 (9:00am - 6:00 pm) [Office hours]

#### SECTION 2: Hazards identification

##### 2.1 Classification of the substance or mixture

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

Acute toxicity, Oral (Category 4), H302  
Serious eye damage (Category 1), H318  
Acute aquatic toxicity (Category 1), H400  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

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

##### 2.2 Label elements

###### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word  
Hazard statement(s)

Danger

H302  
H318  
H410

Harmful if swallowed.  
Causes serious eye damage.  
Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P273	Avoid release to the environment.
P280	Wear protective gloves/ eye protection/ face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/ container to an approved waste disposal plant.
Supplemental Hazard Statements	none

**2.3 Other hazards - none**

**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

Formula	:	ZnSO <sub>4</sub> .7H <sub>2</sub> O
Molecular weight	:	287.54 g/mol
CAS-No.	:	7446-20-0
EC-No.	:	231-793-3
Index-No.	:	030-006-00-9

**Hazardous ingredients according to Regulation (EC) No 1272/2008**

Component	Classification	Concentration
<b>Zinc sulfate heptahydrate</b>		
CAS-No.	7446-20-0	<= 100 %
EC-No.	231-793-3	
Index-No.	030-006-00-9	
	Acute Tox. 4; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1; H302, H318, H400, H410 M-Factor - Aquatic Acute: 1	

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

**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.

**In 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**

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

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

No data available

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**

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

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

Sulphur oxides, Borane/boron oxides, Zinc/zinc oxides

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

No data available

**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 materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

Avoid contact with skin and eyes. 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**

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

Storage class (TRGS 510): Combustible Solids

**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**

**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.

**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 (EN 143) respirator cartridges as a backup to engineering controls. If the full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

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

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |   |                                    |
|---|------------------------------------|
| a) Appearance                                   | Form: Crystalline<br>Colour: White |
| b) Odour  | No data available                  |
| c) Odour Threshold                              | No data available                  |
| d) pH   | 4.0 - 6.0 at 50 g/l at 20 °C       |
| e) Melting point/freezing point                 | Melting point/range: > 500°C       |
| f) Initial boiling point and boiling range      | No data available                  |
| g) Flash point                                  | Not applicable                     |
| h) Evaporation rate                             | No data available                  |
| i) Flammability (solid, gas)                    | No data available                  |
| j) Upper/lower flammability or Explosive limits | No data available                  |
| a) Vapour pressure                              | No data available                  |
| k) Vapour density                               | No data available                  |
| l) Relative density                             | 1.957 g/cm <sup>3</sup> at 20 °C   |
| m) Water solubility                             | 965 g/l at 20 °C                   |
| n) Partition coefficient: n-octanol/water       | No data available                  |
| o) Auto-ignition temperature                    | No data available                  |
| p) Decomposition temperature                    | No data available                  |
| q) Viscosity                                    | No data available                  |
| r) Explosive properties                         | No data available                  |
| s) Oxidizing properties                         | No data available                  |

### 9.2 Other safety information

- |              |                               |
|--------------|-------------------------------|
| Bulk density | 800 - 1,000 kg/m <sup>3</sup> |
|--------------|-------------------------------|

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

- No data available

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**

No data available

**10.5 Incompatible materials**

Strong oxidizing agents

**10.6 Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Borane/boron oxides, Zinc/zinc oxides

In the event of fire: see section 5

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

LD50 Oral - Rat - 2,150 mg/kg (Zinc sulfate heptahydrate)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) LD50

Intraperitoneal - Rat - 200 mg/kg (Zinc sulfate heptahydrate)

**Skin corrosion/irritation**

No data available (Zinc sulfate heptahydrate)

**Serious eye damage/eye irritation**

Eyes – Rabbit (Zinc sulfate heptahydrate)

Result: Risk of serious damage to eyes. (OECD Test Guideline 405)

**Respiratory or skin sensitization**

No data available (Zinc sulfate heptahydrate)

**Germ cell mutagenicity**

No data available (Zinc sulfate heptahydrate)

**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 (Zinc sulfate heptahydrate)

**Specific target organ toxicity - single exposure**

No data available (Zinc sulfate heptahydrate)

**Specific target organ toxicity - repeated exposure**

No data available (Zinc sulfate heptahydrate)

**Aspiration hazard**

No data available (Zinc sulfate heptahydrate)

**Additional Information**

No data available (Zinc sulfate heptahydrate)

**SECTION 12: Ecological information**

**12.1 Toxicity**

Toxicity to fish mortality LC50 - other fish - 1 - 10 mg/l - 96.0 h(Zinc sulfate heptahydrate)

**12.2 Persistence and degradability**

The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3 Bio accumulative potential**

No data available

**12.4 Mobility in soil**

No data available (Zinc sulfate heptahydrate)

**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 chem scrubber.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information**

**14.1 UN number**

ADR/RID: - 3077

IMDG: - 3077

IATA: - 3077

**14.2 UN proper shipping name**

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc sulfate heptahydrate)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc sulfate heptahydrate)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc sulfate heptahydrate)

**14.3 Transport hazard class(es)**

ADR/RID: - 9

IMDG: - 9

IATA: - 9

**14.4 Packaging group**

ADR/RID: - III

IMDG: - III

IATA: - III

**14.5 Environmental hazards**

ADR/RID: yes

IMDG Marine pollutant: no

IATA: yes

**14.6 Special precautions for user**

No data available

**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

**SECTION 16: Other information**

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

H302

Harmful if swallowed.

H318

Causes serious eye damage.

H400

Very toxic to aquatic life.

H410

Very toxic to aquatic life with long lasting effects.

### Further information

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. Auraiya Laboratory Chemicals (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.auraiyalabchem.com](http://www.auraiyalabchem.com) for additional terms and conditions of sale.