

大连星镁矿业有限公司

STAR GRACE MINING CO., LTD.

Add: 29-67, No. 929, Xinan Road, Shahekou District, Dalian, Liaoning, China

MATERIAL SAFETY DATA SHEET

Product Name: Zinc sulfate monohydrate

1. Chemical Identification and Company Identification

Cas Number..... 7446-19-7
Synonyms..... Zinc sulphate (monohydrate)
Formula..... $\text{ZnSO}_4 \cdot \text{H}_2\text{O}$
HMIS
Health 2
Flammability 1
Reactivity 1
Per. Protection H

Company Identification:

Emergencies Call..... +86 0411-62672278

2. Composition / Information on Ingredients

<u>Component</u>	<u>CAS No.</u>	<u>%</u>	<u>EINECS</u>
Zinc sulfate monohydrate	7446-19-7	98	231-793-3

3. Hazards Identification

Effects of Exposure..... Danger! Harmful if swallowed. Causes severe eye irritation and possible injury.
Harmful to aquatic organisms; may cause long-term adverse effects in the aquatic environment. Eye: Risk of serious damage to eyes. Skin: May cause skin irritation. May be harmful if absorbed through the skin. Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.
Route of Exposure..... Inhalation, ingestion, eye and skin contact
Target Organs..... Mucous membranes, eyes, skin

4. First Aid Procedures

Skin..... Get medical aid immediately. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.
Eyes..... Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

大 连 星 镁 矿 业 有 限 公 司

STAR GRACE MINING CO., LTD.

Add: 29-67, No. 929, Xinan Road, Shahekou District, Dalian, Liaoning, China

Inhalation..... Get medical aid immediately. Remove from exposure to fresh air immediately.
If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Ingestion..... Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Note to physician..... Treat symptomatically and supportively.

5. Fire Fighting Measures

Flash Point..... None

Auto Ignition Temp..... None

Extinguishing media..... Water spray, carbon dioxide, appropriate chemical foam, dry chemical.

Special Procedures..... Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual Hazards..... Emits toxic fumes under fire conditions.

6. Accidental Release Measure

Spills or Leaks..... Vacuum or sweep up material and place into a suitable disposal container.
Avoid generating dusty conditions. Do not let this chemical enter the environment.

7. Handling and storage

Handling & Storage..... Minimize dust generation and accumulation. Avoid breathing dust, mist, or vapor. Avoid contact with skin and eyes. Avoid ingestion and inhalation. Store in a cool, dry place. Store in a tightly closed container.

Other Precautions..... See section 8 for personal protective equipment.

8. Exposure controls / Personal Protection

Respiratory Protection..... NIOSH/MSHA-approved respirator.

Skin Protection..... Protective gloves

Eye Protection..... Chemical safety splash goggles

Ventilation..... Use adequate ventilation to keep airborne concentrations low.

Other Protections..... Eyewash Station and Safety Shower Readily Accessible. Synthetic Apron.

9. Physical Properties

大 连 星 镁 矿 业 有 限 公 司

STAR GRACE MINING CO., LTD.

Add: 29-67, No. 929, Xinan Road, Shahekou District, Dalian, Liaoning, China

Specific Gravity..... Not Available
Boiling Point..... Not Available
Melting Point..... Not Available
Solubility in water..... 350 g/l (20°C)
pH (in water)..... 4.0-5.2 (50 g/L aq.sol.)
Appearance..... colorless to white solid
Odor..... Odorless
Mol. Wt..... 179.47

10. Stability and Reactivity

Stability..... Stable. Hygroscopic: absorbs moisture or water from the air..
Conditions to Avoid..... Incompatible materials, dust generation, exposure to moist air or water.
Hazardous Polymerization..... Has not been reported
Incompatibility..... Not Available
Hazardous Decomposition:..... Sulfur oxides (SO_x), including sulfur oxide and sulfur dioxide, zinc oxides.

11. Toxicological Information

Toxicity (LC₅₀ / LD₅₀)..... Not available
Skin Irritation (DECD 404)..... Not Available
Eye Irritation..... Not Available
Listed Carcinogen..... Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
RTECS #: None listed

12. Ecological Information

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. Disposal Considerations

Waste Disposal Info..... Dispose in accordance with Federal, State, and Local regulation.
RCRA Hazardous Waste:..... Not Listed.
CERCLA..... Not available

14. Transport Information

US DOT listed..... Not Listed
UN/NA number..... Not available
Hazardous Class..... Not available

大 连 星 镁 矿 业 有 限 公 司

STAR GRACE MINING CO., LTD.

Add: 29-67, No. 929, Xinan Road, Shahekou District, Dalian, Liaoning, China

Packing Group..... Not available

Shipping Name..... Chemicals, N.O.S. (Zinc sulfate monohydrate)

Label Hazards..... Danger! Harmful if swallowed. Causes severe eye irritation and possible injury.
Harmful to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

Label Precautions..... Avoid contact with skin and eyes. Wash hands thoroughly after handling.

15. Regulatory Information

US Information:

TSCA..... Not Listed

SARA..... Not available

OSHA..... None of the chemicals in this product are considered highly hazardous by OSHA

FDA/USDA..... Not available

State Regulatory Info..... Not available

Canada Information:

DSL List..... Listed

WHMIS Classification..... D1B, D2B

Ingredient Disclosure List..... Not Listed

European Information:

Hazard Symbols..... XN N

Risk Phrases:

R 22..... Harmful if swallowed.

R 41..... Risk of serious damage to eyes.

R 50/53..... Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S 22..... Do not breathe dust.

S 26..... In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 39..... Wear eye/face protection.

S 46..... If swallowed, seek medical advice immediately and show this container or label.

S 60..... This material and its container must be disposed of as hazardous waste.

S 61..... Avoid release to the environment. Refer to special instructions/safety data sheets.

16. Other Information

大 连 星 镁 矿 业 有 限 公 司

STAR GRACE MINING CO., LTD.

Add: 29-67, No.929, Xinan Road, Shahekou District, Dalian, Liaoning, China

In accordance with good practices of personal cleanliness and hygiene handle with due care and avoid unnecessary contact with this product.

This information is being supplied to you under OSHA "Right to Know" Regulation 29 CFR 1910.1200 and is offered in good faith as typical values and not as a product specification. The information contained herein is based on the data available to us and is believed to be true and accurate.

No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof, is made. STAR GRACE MINING CO., LTD. assumes no responsibility for damage or injury from the use of the product described herein.

STAR GRACE MINING CO., LTD.