



OCI Company Ltd.

Material Safety Data Sheet

MSDS

Magnesium Sulfate Heptahydrate

Section 1 - Chemical Product and Company Identification

Product name : Magnesium Sulfate Heptahydrate

Recommended use : Laboratory chemicals, Testing, Research and Industrial use

Restriction of use : No data available

Company Identification

Company : OCI Company Ltd.

Address : 94, Sogong-ro, Jung-gu, Seoul, KOREA

Tel No. : 82 - 2 - 727 - 9494

Section 2 - Hazards Identification

- | | |
|-------------------------------------|-------------------|
| 1) Hazard Classification | Not applicable |
| 2) Warning signal | |
| Symbol | Not applicable |
| Signal word | Not applicable |
| Hazard statement | Not applicable |
| Prevention precautionary statements | |
| Precaution | Not applicable |
| Measures | Not applicable |
| Storage | Not applicable |
| Dispose | Not applicable |
| 3) NFPA | |
| Health Rating | No data available |
| Flammability Rating | No data available |
| Reactivity Rating | No data available |

Section 3 - Composition, Information on Ingredients

Component : Magnesium Sulfate Heptahydrate

CAS No. : 10034-99-8

Content : 100%

Section 4 - First Aid Measures

- 1) Eye contact :

Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

2) Skin contact :

Wash skin thoroughly with soap and water. Get medical attention if symptoms occur. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

3) Inhalation :

Move to fresh air. Get medical attention if symptoms persist.

4) Ingestion :

Do not induce vomiting. Get medical advice/attention immediately.

5) Indication of immediate medical attention and special treatment needed Treatment :

Keep the medical personnel aware of the materials involved and take protective action

Section 5 - Fire Fighting Measures

1) Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: None known.

2) Specific hazards arising from the chemical:

Thermal decomposition products: Sulfur oxides

Fire and explosion hazards: Serious fire hazard exists.

Steam or gas may be ignited from a distant source of ignition and may diffuse in an instant.

Vapors are heavier than air and may spread along floors.

Vapors may form explosive mixtures with air.

3) Special protective equipment and precautions for firefighters

Move a container away from fire place, available not being dangerous

Cool the container with water spray for long time, after extinguishing

No direct contact with material by water. In case of big fire, mass watering in fine spray and decrease vapor.

Spray in safety distance, avoid inhaling of material-itself and burnings, position in opposite wind and escape low area.

Section 6 - Accidental Release Measures

1) Personal precautions, protective equipment and emergency procedures :

Don't touch leakages and avoid inhale and skin contact, ventilate and use air respiratory in closed room, remove ignition source.

2) Environmental precautions

Use appropriate containment to avoid environmental contamination.

Put on sand, earth or other appropriate barrier to prevent spreading or entering into drains, ditches or rivers.

3) Methods and material for containment and cleaning up :

Absorb spilled material with sand, clay, and other adsorbents.

Section 7 - Handling and Storage

1) Precautions for safe handling :

Skin contact, inhalation of vapors and prevent intrusion to the eye, all containers will be grounded

2) Conditions for safe storage, including any incompatibilities :

Keep containers sealed and in a cool dry place, will store in a well-ventilated area. Incompatible substances will be isolated.

Section 8 - Exposure Controls, Personal Protection

1) Occupational exposure limit, biological exposure limit

Domestic regulations : No data available

ACGIH : No data available

Biological exposure limit : No data available

2) Appropriate Engineering Controls :

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

3) Personal protective equipment

Respiratory protection : Because it is concerned about the harmfulness of human body due to chemical substances, it is recommended to wear respiratory protective equipment with canister mask or gas filter in consideration of physical and chemical characteristics when handling.

Respiratory protection should be certified by the Health and Safety Authority.

It is concerned about the harmfulness of the human body depending on the working environment, it should wear respirator, air-purifying respirator

Eye protection : Wear safety glasses with side shields (or goggles).

Hand Protection: Chemical resistant gloves

Skin & Body Protection : Wear suitable protective clothing

Section 9 - Physical and Chemical Properties

Appearance

Physical state: Solid

Color: colorless~white

Odor : Odorless

Odor threshold : No data available

pH : 5~8 (5% soln).

Melting point/freezing point : 1124 °C

Initial boiling point and boiling range : 330 °C

Flash Point : Not applicable

Evaporation rate : No data available.

Flammability (solid, gas) : Not applicable

Upper/lower limit on flammability or explosive limits : Not applicable

Vapor pressure : 0.1 mmHg

Solubility(ies) : 710000 mg/ ℓ

Vapor density : <0.01

Relative density : 1.68

Partition coefficient (n-octanol/water) : No data available

Auto-ignition temperature : No data available
Decomposition temperature : No data available.
Viscosity : No data available
Molecular weight : 246.48

Section 10 - Stability and Reactivity

- 1) Chemical stability and Possibility of hazardous reactions : Material is stable under normal conditions.
- 2) Conditions to avoid : Avoid heat, sparks, flames and other sources of ignition.
- 3) Incompatible materials : reducing substance, combustible material
- 4) Hazardous decomposition products : Thermal decomposition may release oxides of sulfur

Section 11 - Toxicological Information

- 1) Information on likely routes of exposure : No data available
- 2) Information on health hazards
 - Acute toxicity
 - Oral : No data available
 - Dermal : No data available.
 - Inhalation : No data available
 - Skin Corrosion/Irritation : Not irritation
 - Serious Eye Damage/Eye Irritation : No data available
 - Respiratory Sensitization : No data available.
 - Skin Sensitization : No data available
 - Carcinogenicity
 - Occupational Safety and Health Act : No data available.
 - Notice of Ministry of Employment and Labor : No data available
 - IARC : No data available
 - OSHA : No data available.
 - ACGIH : No data available
 - NTP : No data available.
 - EU CLP : No data available.
 - Germ Cell Mutagenicity : No data available
 - 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 Product : No data available

Section 12 - Ecological Information

- 1) Ecotoxicity:
 - Fish : No data available
 - Invertebrates : No data available
 - Aquatic algae : No data available
- 2) Persistence and degradability
 - Persistence : No data available

Degradability : No data available

3) Bioaccumulative potential

Concentrations : No data available

Biodegradability : No data available

4) Mobility in soil: No data available.

5) Other adverse effects: No data available.

Section 13 - Disposal Considerations

1) Waste methods : If specified in the Waste Management Act, waste contents and containers in accordance with the regulations.

2) Precautions for Waste : Consider the precautions specified in the regulations when specified in the Waste Management Act

Section 14 - Transport Information

1) UN Number : Not regulated

2) Shipping Name : Not applicable

3) Hazard Class : Not applicable

4) Packing Group : Not applicable

5) Marine pollutant : Not applicable

6) Particular safety Measures for transportation :

Fire emergency measures : Not applicable

Leakage emergency measures : Not applicable

Section 15 - Regulatory Information

1) Occupation safety and health acts Standard material of exposure : Not applicable

2) Chemical Substances Control Act : Not applicable

3) National law of Safety management of hazardous material : Not applicable

4) National law of management of Wastes : Designated Waste

5) Other domestic and foreign law : Not applicable

EU classification information (confirmed classification result) : Not applicable

EU classification information (risk statements) ; Not applicable

EU classification information (safety statements) : Not applicable

Section 16 - Other Information

1) Source of data :

A chemical information MSDS Safety and Health Agency

National Institute of Environmental Research Chemical Information Systems

Korea Industrial Technology National Fire Hazardous Materials Information System

2) 1st Write date : 04/19/2023

3) Revision and The final revision

Revision number : 0

Final revisoin Date : 04/19/2023

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