
Safety Data Sheet

Product Name	Magnesium sulfate heptahydrate
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identification:

Product Description: Magnesium sulfate heptahydrate

Synonyms: Epsom salts

CAS-No: 10034-99-8

EC-No.: 231-298-2

Molecular Formula: $MgSO_4 \cdot 7H_2O$

REACH Registration No: 01-2119486789-11-XXXX

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

Recommended Use: Laboratory chemicals, Manufacture of substance

1.3. 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
- **E-Mail Address** safety.finar@aceto.com; info.finar@aceto.com

1.4. 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:

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2. Label Elements:

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

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.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Magnesium sulfate heptahydrate

3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Magnesium sulfate heptahydrate	10034-99-8	231-298-2	> 95

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**

After inhalation: fresh air.

- **If Contact with skin**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

- **In case of eye contact**

After eye contact: rinse out with plenty of water. Remove contact lenses.

- **If swallowed**

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

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

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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 extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

5.2. Special hazards arising from the substance or mixture:

Sulfur oxides

Magnesium oxide

Not combustible.

Ambient fire may liberate hazardous vapours.

5.3. Advice for firefighters:

In the event of fire, wear self-contained breathing apparatus.

5.4 Further Information:

Suppress (knock down) gases/vapours/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:**

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2. Environmental precautions:

Do not let product enter drains.

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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

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6.4. Reference to other sections:

For disposal see Sections 13.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling:**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin and eyes. Do not breathe dust.

7.2. Conditions for safe storage, including any incompatibilities:

Keep containers tightly closed in a dry and well-ventilated place. Incompatible Materials. Strong bases.

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:**

Ingredients with workplace control parameters

8.2. Exposure Controls:

Personal Protective Equipment:

Eye & Face Protection-

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

Body Protection-

Protective clothing.

Hand Protection-

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

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Full contact-

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

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(e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact-

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

Respiratory Protection-

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental Exposure Controls-

Do not let product enter drains.

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

- **Appearance:** White
- **Physical State:** Solid
- **Odor:** Odorless
- **Odor Threshold:** No data available
- **pH:** 5.0 -8.2 5% aq. sol

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- **Melting Point:** 770°C
- **Critical Temperature:** No data available
- **Vapor Pressure:** <0.1 mmHg at 20 °C
- **Relative Density:** No data available
- **Density:** No data available
- **Auto-Ignition Temperature:** No data available
- **Decomposition Temperature:** > 150°C
- **Volatility:** No data available
- **Bulk Density:** No data available
- **Viscosity, dynamic:** No data available
- **Viscosity, Kinematic:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Partition Co-efficient: n-octanol/Water:** No data available
- **Ionicity (in Water):** No data available
- **Lower Explosion Limit:** No data available
- **Upper Explosion Limit:** No data available
- **Boiling Point/Range:** No data available
- **Specific Gravity:** 1.678
- **Flash Point:** No data available
- **Water Solubility:** 710 g/l at 20 °C completely soluble

9.2. Other information:**Molecular Formula:** MgSO₄ · 7H₂O**Molecular Weight:** 246.48 g/mol**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity:**

No data available

10.2. Chemical stability:

The product is chemically stable under standard ambient conditions (room temperature).

10.3. Possibility of hazardous reactions:

No data available

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10.4. Conditions to avoid:

Avoid dust formation. Excess heat. Exposure to moist air or water.

10.5. Incompatible materials:

Strong bases

10.6. Hazardous decomposition products:

Sulfur oxides, Magnesium oxides

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 - > 2.000 mg/kg (OECD Test Guideline 425)

LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: potassium sulphate

Skin irritation

Skin - reconstructed human epidermis (RhE)

Result: No skin irritation - 5 min

(Regulation (EC) No. 440/2008, Annex, B.46)

The value is given in analogy to the following substances: potassium sulphate

Eye irritation

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: potassium sulphate

Sensitisation

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

Remarks: (anhydrous substance)

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Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Teratogenicity

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 Further Information:

Repeated dose toxicity - Rat - male - Oral - NOAEL (No observed adverse effect level) – 256 mg/kg

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: ammonium sulphate

RTECS: OM4508000

Diarrhea, Vomiting, Central nervous system depression

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Toxic effects are only to be expected at very high doses.

Systemic effects:

After uptake of large quantities:

Nausea

Vomiting

Diarrhea

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However, when the product is handled appropriately, hazardous effects are unlikely to occur.

Therapeutically used substance.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

Toxicity to fish

Static test LC50 - Pimephales promelas (fathead minnow) - 680 mg/l - 96 h (US-EPA)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: potassium Sulphate

Toxicity to daphnia and other aquatic invertebrates

Static test LC50 - Daphnia magna (Water flea) - 720 mg/l - 48 h (US-EPA)

Remarks: (in analogy to similar products)

12.2 Persistence and degradability:

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

12.3 Bioaccumulate potential:

No data available

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:

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

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SECTION 14: Transport information

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	-		
14.2 Proper shipping name	Not dangerous goods		
14.3 Class	-		
14.4 Packing group	-		
14.5 Environmentally hazardous	No		
14.6 Special precautions for user	-		

SECTION 15: Regulatory information

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

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

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament : Not applicable
and of the Council on the control of major-accident hazards
involving dangerous substances.

15.2 Chemical safety assessment:

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

SECTION 16: Other information

Training advice

Provide adequate information, instruction and training for operators.

References: Not available

Created: 18/02/2022

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Disclaimer:

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