

MAGNESIUM SULFATE 7-HYDRATE

Section 1: Chemical Product and Company Identification

1.1 Product identifier

Product Name: Magnesium Sulfate 7-hydrate

Material No. 9046XXXXXXXXXX

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

Relevant identified uses: Pharma, technical

1.3 Details of the supplier of the safety data sheet

CHEMICAL ELEMENTS UKRAINE, LLC
Khimikov avenue, 74, Cherkassy, 18028, Ukraine
+38 0472 59 02 28
hello@chemelements.life
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1.4 Emergency telephone number

+49 40 333 13 237

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.

Section 3: Composition and Information on Ingredients

3.1 Substance

Chemical name: Magnesium Sulfate 7-hydrate

Formula: $MgSO_4 \cdot 7H_2O$

CAS No. 10034-99-8

EC No. 231-298-2

3.2 Hazardous components (REGULATION (EC) No 1272/2008)

Component	CAS No.	WP, %
Magnesium Sulfate 7-hydrate	10034-99-8	99,0-100,5

3.5 Mixture

Not applicable

Section 4: First Aid Measures

4.1 Description of first aid measures

Inhalation: Fresh air, rest, warmth, warm drink.

Ingestion: Immediately after swallowing, induce vomiting, rinse stomach with water. In later cases, activated charcoal, mucous substances (egg milk, oatmeal).

Skin: Rinse with running water. Consult doctor if feeling unwell.

Eye contact: Rinse with cold running water with an open palpebral fissure. Instill a 30% solution of albuterol. Consult doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Nausea, increased intestinal motility, diarrhea, abdominal pain, discomfort in the heart, decreased blood pressure, muscle weakness, redness of the eyes, nose, throat, nosebleeds.

4.3 Indication of any immediate medical attention and special treatment needed

No information available

Section 5: Fire fighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Thermal degradation products: at 150-350°C it loses hydrated water, at 700-1127°C it decomposes to anhydrous magnesium sulfate to form magnesium oxide / hydroxide, sulfur oxides.

5.3 Advice for firefighters

In a fire situation, wear self-contained positive pressure breathing apparatus and protective clothing from resistant materials.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation and ingestion. Avoid contact with skin, eyes and clothing. Wear protective clothing specified for normal operations (see Section 8).

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and materials for containment and cleaning up

Substance collect in a closed identified container, using a dry method. Wash off contaminated surface with water and detergents.

6.4 Reference to other sections

Disposal (see Section 13).

Section 7: Handling and Storage

7.1 Precautions for safe handling

Change contaminated clothing immediately; wash hands and face after handling.

7.2 Conditions for safe storage, including any incompatibilities

Store in covered, dry warehouses in the original tightly closed packaging.

7.3 Specific end use(s)

Pharma, technical.

Section 8: Exposure Controls/Personal Protection

8.1 Control parameters

Provide adequate ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits. The level of protection and types of controls will vary depending upon potential exposure conditions.

8.2 Exposure controls

Eye/face protection:	Safety glasses with side-shields.
Skin and body protection:	Wear suitable protective clothing (protective gloves, dustproof clothing and special footwear). Recommended Glove material: Nitrile rubber 0,11 mm.
Respiratory Protection:	Respiratory protection necessary at: Dust formation. Recommended Filter type: Filter P1.

Section 9: Physical and Chemical Properties

Form:	Solid
Appearance:	White crystalline powder
Odour:	Odourless
Melting Point:	Not applicable (substance decomposes)
Boiling point:	Not applicable (substance decomposes)
Decomposition temperature:	At 150°C it loses 6 water molecules; at 200°C loses 7 water molecules; at 1127°C the anhydrous form decomposes.

SAFETY DATA SHEET

Solubility in Water:	710 g/l (20°C)
Solubility in Organic Solvents:	Soluble in ethanol and methanol
Specific Gravity:	1,636-1,68 g/cm ³
pH:	pH 5,0-8,2 (5%, H ₂ O, 20°C)
Flammability:	Not applicable
Molecular Weight:	246,48
Partition coefficient: n-octanol/water:	No information available
Vapor pressure:	It does not form a vapor at standard conditions

Section 10: Stability and Reactivity Data

10.1 Reactivity

Reacts with acids, alkalis, arsenates, phosphates and tartrates.

10.2 Chemical stability

The substance is chemically stable under standard environmental conditions.
May lose hydrated water through prolonged contact with air.

10.3 Possibility of hazardous reactions

No information available

10.4 Conditions to avoid

Heating (decomposition). Long contact with air.

10.5 Incompatible materials

Acids, alkalis. Arsenates, phosphates, tartrates, lead, barium, strontium, calcium, ethoxyethyl alcohols.

10.6 Hazardous decomposition products

See 5.2

Section 11: Toxicological Information

Acute Toxicity:	Rat (oral) LD ₅₀ >2000 mg/kg; Mice (intraperitoneally) LD ₅₀ =150 mg/kg.
Inhalation:	No information available
Skin:	Да (крыса, раздражение кожи, гиперемия)
Eye:	Yes (rabbit, hyperemia of the eye mucosa, lacrimation)
Carcinogenicity:	No information available
Mutagenicity:	No information available
Reproductive toxicity:	Yes (rat, 150 mg/kg, intragastrically, for metabolic disorders, increased mortality of embryos).
Specific target organ toxicity - single exposure:	No information available
Specific target organ toxicity - repeated exposure:	No information available
Aspiration hazard:	No information available
Systemic effects:	See 4.2

Section 12: Ecological Information

12.1 Acute toxicity

Acute Toxicity to Fish: CL₀=1900 mg/l (Centrarchida, 24 h); CL₀=14000 mg/l (Leuciscus idus melanotus, 48 h); CL₀=15500 mg/l (Gambusia affinis, 48 h).

Acute Toxicity to Aquatic Invertebrates: EC₅₀ =1700 mg/l (24 h).

Acute Toxicity to Aquatic Plants: EC₅₀ =2700 mg/l (Scenedesmus subspicatus,72 h).

12.2. Persistence and degradability

Stability under abiotic conditions (τ_{1/2}): 30-7 days (highly stable). Products of transformation in the environment- None.

12.3 Bioaccumulative potential

No information available

12.4. Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Other adverse effects

No information available

Section 13: Disposal Considerations

Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

Section 14: Transport Information

14.1 UN number

Not dangerous goods

14.2 UN proper shipping name

Not dangerous goods

14.3 Transport hazard class(es)

Land transport (ADR/RID): Not classified as dangerous in the meaning of transport regulations

Air transport (IATA): Not classified as dangerous in the meaning of transport regulations

Sea transport (IMDG): Not classified as dangerous in the meaning of transport regulations

14.4 Packaging group:

Not dangerous goods

Section 15: Other Regulatory Information

Chemical Safety Assessment: No information

Section 16: Other Information

Revision date: May, 2020

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