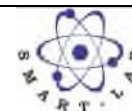


MATERIAL SAFETY DATA SHEET
According to regulation (EU) no.1907/2006

**MAGNESIUM SULPHATE HEPTAHYDRATE**

Revision : 01

Date : August 10th, 2022

MSDS Number :118

Section 1 - Chemical Product and Company Identification

- 1.1 Product Name** : **MAGNESIUM SULPHATE HEPTAHYDRATE**
Synonyms : Epsom Salt (Heptahydrate)
CAS No. : 10034-99-8
HS Code : 2833 21 00
Chemical Formula : MgSO₄. 7 H₂O
Molecular Weight : 246.48 g/mol
Product Code : A-2024
Brand : SMART-LAB
- 1.2 Manufacturer** : **PT.Smart-Lab Indonesia**
Address : Ruko Boulevard Taman Tekno Blok E No. 9-11, BSD Serpong,
Tangerang - Indonesia
Website : www.smartlabid.com
Email : sales@smartlabid.com
For information : Telp: +62-21- 7588 0205(Hunting), fax: +62-21-7588 0198
- 1.3 Application** : General Chemical reagent
Emergency Telephone: +62-21-7588 0205(Hunting)

Section 2 - Hazards Identification

- 2.1 Classification of the substance or mixture**
Classification according to Regulation (EC) No 1272/2008
 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.

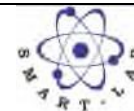
Section 3 - Composition, Information on Ingredients

- 3.1 Substances**
Synonyms : Epsom salts
Formula : MgSO₄. 7 H₂O
Molecular weight : 246.48 g/mol
CAS-No. : 10034-99-8
EC-No. : 231-298-2
Index-No. : -
- 3.2 Mixture**
 Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008

Section 4 - First Aid Measures

- 4.1 Description of first aid measures**
If inhaled
 If breathed in, move person into fresh air. If not breathing, give artificial respiration.

MATERIAL SAFETY DATA SHEET
According to regulation (EU) no.1907/2006

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MSDS Number :118

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

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 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/vapors/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.

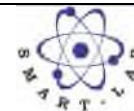
6.3 Methods and materials for containment and cleaning up

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.

6.4 Reference to other sections

For disposal see section 13.

MATERIAL SAFETY DATA SHEET
According to regulation (EU) no.1907/2006

**MAGNESIUM SULPHATE HEPTAHYDRATE**

Revision : 01

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MSDS Number :118

Section 7 - Handling and Storage

7.1 Precautions for safe handling

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

Storage conditions
Tightly closed. Dry.

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****Appropriat engineering controls**

General industrial hygiene practice

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).

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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 Size M)

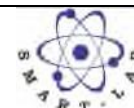
Splash contact

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 Size M)

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

MATERIAL SAFETY DATA SHEET
According to regulation (EU) no.1907/2006

**MAGNESIUM SULPHATE HEPTAHYDRATE**

Revision : 01

Date : August 10th, 2022

MSDS Number :118

Respiratory protection

Respiratory protection is not required. Where protection from nuisance le (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.

Section 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Form: Fine crystals and fragments
	Colour: white
Odour	No data available
Odour Threshold	No data available
pH	5.0 - 8.0 at 50 g/l
Melting point/freezingpoint	Melting point: 1.124,0 °C
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	The product is not flammable.
Upper/lower flammability or explosive limits	No data available
Vapour pressure	0,133 hPa at 20 °C - (External MSDS)
Vapour density	No data available
Relative density	No data available
Water solubility	710 g/l at 20 °C - completely soluble
Partition coefficient: noctanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	Not explosive
Oxidizing properties	No data available

9.2 Other safety information

No data available

Section 10 - Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

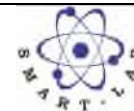
10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

MATERIAL SAFETY DATA SHEET
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MSDS Number :118

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Magnesium oxide

Other decomposition products - No data available

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 corrosion/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

Serious eye damage/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

Respiratory or skin sensitisation

Local lymph node assay (LLNA) - Mouse

Result: negative (OECD Test Guideline 429)

Remarks: (anhydrous substance)

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

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(Magnesium(II) sulfate heptahydrate)

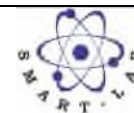
Specific target organ toxicity - single exposure

No data available(Magnesium(II) sulfate heptahydrate)

Specific target organ toxicity - repeated exposure

No data available

MATERIAL SAFETY DATA SHEET
According to regulation (EU) no.1907/2006

**MAGNESIUM SULPHATE HEPTAHYDRATE**

Revision : 01

Date : August 10th, 2022

MSDS Number :118

Aspiration hazard

No data available(Magnesium(II) sulfate heptahydrate)

Additional Information

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.

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 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available(Magnesium(II) 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

No data available

Section 13 - Disposal Considerations

13.1 Waste treatment methods**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Section 14 - Transport Information

14.1 UN number

ADR/RID: -

IMDG: -

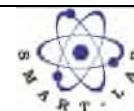
IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

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MSDS Number :118

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

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 - Additional Information

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 0

Reactivity: 0

Revision history :

Date	Rev	Description
Feb 11, 2019	00	-
August 10, 2022	01	thorough revision

Further information

The information above is believed to be accurate and represents the best information currently available to us. 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. PT. Smartlab Indonesia shall not be held liable for any damage resulting from handling or from contact with the above product.