



EPSO Top®

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 8/31/2022 Revision date: 8/31/2022 Version: 20.1

SECTION 1: Identification

1.1. Identification

Product form : Substance
Trade name : EPSO Top®
CAS-No. : 10034-99-8
Formula : $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Fertilisers

1.3. Supplier

Manufacturer

K+S Minerals and Agriculture GmbH
7 Bertha-von Suttner-Str.
Kassel, 34131 - Deutschland
T +49 561 9301- 0
info@k-plus-s.com - www.kpluss.com

1.4. Emergency telephone number

Emergency number : For Chemical Emergency Call : for incidents involving hazardous materials [or dangerous goods]
spill, leak, fire, exposure or accident, call CHEMTREC 24hr/day 7days/week
Within USA and Canada: +1 800 424 - 9300
Outside USA and Canada: +1 703 741 - 5970
(collect calls accepted)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labelling

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent
Name : EPSO Top
CAS-No. : 10034-99-8

Name	Product identifier	%	GHS US classification
Magnesium sulfate heptahydrate	CAS-No.: 10034-99-8	99	Not classified

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Unsuitable extinguishing media : Strong water jet.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Other information : Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

No additional information available

7.2. Conditions for safe storage, including any incompatibilities

Information on mixed storage : Keep away from food, drink and animal feeding stuffs.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

EPSO Top® (10034-99-8)

No additional information available

Magnesium sulfate heptahydrate (10034-99-8)

No additional information available

8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline powder.
Colour	: white
Odour	: none to slight
Odour threshold	: No data available
pH	: ≈ 8
pH solution	: 8 – 11 % Aqueous solution
Melting point	: 770 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.7 g/cm³
Molecular mass	: 246.47 g/mol
Solubility	: Water: 26.3 %
Partition coefficient n-octanol/water (Log Pow)	: No data available

Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: The product is not explosive. Is not classified according to Regulation (EU) 2019-1148.
Oxidising properties	: Non oxidizing.

9.2. Other information

Bulk density	: $\approx 980 \text{ kg/m}^3$
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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Magnesium sulfate heptahydrate (10034-99-8)

LD50 oral rat	> 4000 mg/kg (Rat, Oral)
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Skin corrosion/irritation	: Not classified pH: ≈ 8
Serious eye damage/irritation	: Not classified pH: ≈ 8
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

Viscosity, kinematic : No data available

SECTION 12: Ecological information**12.1. Toxicity****Magnesium sulfate heptahydrate (10034-99-8)**

LC50 - Fish [1]	15500 mg/l (96 h, Gambusia affinis, Anhydrous form)
EC50 - Crustacea [1]	1700 mg/l (24 h, Daphnia magna, Anhydrous form)

12.2. Persistence and degradability**Magnesium sulfate heptahydrate (10034-99-8)**

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential**Magnesium sulfate heptahydrate (10034-99-8)**

Bioaccumulative potential	No bioaccumulation data available.
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations**13.1. Disposal methods**

No additional information available

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Not applicable
Proper Shipping Name (TDG)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable

Packing group (TDG) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Safety Data Sheet (SDS) K+S, USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.