



Magnesium sulphate. COMPOUND SOLID INORGANIC MACRONUTRIENT FERTILISER. Mineral fertiliser (Mg,S) (16-32)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Issue date: 11/2/2020 Revision date: 9/13/2022 Supersedes version of: 11/2/2020 Version: 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	: Substance
Name	: Magnesium sulphate. COMPOUND SOLID INORGANIC MACRONUTRIENT FERTILISER. Mineral fertiliser (Mg,S) (16-32)
CAS-No.	: 10034-99-8
REACH registration No	: This product is exempt from the mandatory registration imposed by Regulation (EC) 1907/2006 (non-chemically modified natural mineral).
Product code	: 0036L08NO
Type of product	: Fertiliser,EU fertilising product
Synonyms	: Epsomite, magnesium sulphate 7H

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

1.2.1. Relevant identified uses

Industrial/Professional use spec	: Agricultural use. For professional use only
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1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Fuentes Fertilizantes, S.L.U.
Pol. Ind. El Saladar. Avda. Antonio Fuentes Méndez, 1
ES- 30850 Totana (Murcia)
España
T +34 968 418 020 - F +(34) 968 42 47 26
fuentes@icl-group.com - www.icl-sf.es

1.4. Emergency telephone number

Emergency number	: +34 968 418 020
Office hours	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

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Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Comments : Within the current knowledge of the supplier and in the applicable concentrations, no additional ingredients classified as hazardous to human health or to the environment, and hence must be reported in this section.

Substance type : Mono-constituent

Name	Product identifier	%
Magnesium sulphate heptahydrate	CAS-No.: 10034-99-8 REACH-no: This product is exempt from the mandatory registration imposed by Regulation (EC) 1907/2006 (non-chemically modified natural mineral).	> 99

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Special measures are not required.
First-aid measures after inhalation : Supply fresh air. In case of disturbances, consult a doctor.
First-aid measures after skin contact : Effects are not known. Wash with soft soap and water.
First-aid measures after eye contact : Slight irritation. Wash the eyes with plenty of water even under the eyelid.
First-aid measures after ingestion : Acts as a laxant. If swallowed, drink plenty of water. Request medical attention if the case requires.

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4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
- Symptoms/effects after ingestion : The ingestion can produce diarrhea (laxant effect).

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Non combustible. Use appropriate extinguishing media for surrounding fire.
- Unsuitable extinguishing media : Unsuitable extinguishing media are not known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not combustible. Not flammable. No oxidising.
- Explosion hazard : Not explosive.
- Hazardous decomposition products in case of fire : In case of strong heating, or if it involves in a fire: release of toxic and corrosive gases/vapors. During a fire they can be released: Sulphur oxides.

5.3. Advice for firefighters

- Precautionary measures fire : Exercise caution when fighting any chemical fire.
- Firefighting instructions : Precipitate gases/vapours/mists with water spray. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid inhaling dust. Avoid contact with skin and eyes. Avoid dust formation. In the presence of dust, use respiratory protection. Use personal protective clothing.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

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6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Inert product, does not require special precautions. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Sweep spilled substance into containers; if necessary, moisten the powder to prevent its spread. Then eliminate with water.
- Other information : No dangerous substances are released.

6.4. Reference to other sections

For further information refer to sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Keep the product in the original and closed container. Avoid dust formation. Take the appropriate protective measures. See Section 8. Use in a ventilation place.
- Hygiene measures : Do not eat, drink or smoke when it's manipulating. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep in a dry and cool place. Mantain clean facilities.
- Packaging materials : Polyethylene. Polypropylene. Paper. Carton.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

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8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Adequate ventilation. Safety measures must be observed for handling chemicals.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Standard EN 166 - Personal eye-protection - specifications

8.2.2.2. Skin protection

Skin and body protection:

Light protective clothing. Safety toe footwear

Hand protection:

Wear suitable gloves resistant to chemical penetration.

8.2.2.3. Respiratory protection

Respiratory protection:

No personal breathing protective equipment is normally required. In case of dust generation, use a mask with filter type P3.

8.2.2.4. Thermal hazards

No additional information available

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8.2.3. Environmental exposure controls

Other information:

Do not eat nor drink in zones where the product is localized. Wash hands after handling. Do not breathe dust.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline.
Colour	: white.
Odour	: Odourless.
Odour threshold	: Not applicable
pH	: 6.5 – 7 (10% in water dissolved)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable. Loses water of crystallization.
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: > 450 °C
Flammability (solid, gas)	: The product is not flammable
Vapour Pressure 20°C	: No data available
Vapour density	: No data available
Relative density	: 1.70
Solubility	: soluble in water. water: 340 g/l (20°C)
Partition coefficient n-octanol/water (Log Pow)	: No data available.
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: Not explosive.
Oxidising properties	: No oxidising.
Explosive limits	: Not applicable

9.2. Other information

Other properties : Flavor: bitter . Bulk density: 0.97 kg/l.

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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable (in terms of reactivity hazards) under recommended storage & use conditions (see Section 7).

10.2. Chemical stability

Stable (in terms of chemical stability) under recommended storage & use conditions (see Section 7).

10.3. Possibility of hazardous reactions

No dangerous reactions under normal use conditions are known.

10.4. Conditions to avoid

None to our knowledge.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

No decomposition if stored and uses as directed. The substance decomposes on heating to dryness or if it is involved in a fire producing toxic and corrosive fumes of sulfur oxides.

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 sulphate heptahydrate (10034-99-8)

LD50 oral rat	> 2000 mg/kg bodyweight (OECD 425)
LD50 dermal rat	> 2000 mg/kg (Information given is based on data obtained from similar substances)

Skin corrosion/irritation : Result: Not irritating to skin

pH: 6.5 – 7 (10% in water dissolved)

Additional information : Information given is based on data obtained from similar substances.

Serious eye damage/irritation : Result: Not irritating to eyes

pH: 6.5 – 7 (10% in water dissolved)

Additional information : Information given is based on data obtained from similar substances.

Respiratory or skin sensitisation : Result: Do not cause skin sensitization (mouse, OECD 429, anhydrous substance)

Germ cell mutagenicity : Genotoxicity in vitro: negative result (OECD 476).

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Carcinogenicity	: Not classified
Reproductive toxicity	: Information given is based on data obtained from similar substances. Teratogenicity: NOAEL \geq 1500 mg/kg (rat)
STOT-single exposure	: Not classified
STOT-repeated exposure	: Information given is based on data obtained from similar substances. NOAEL (oral) \geq 256 mg/kg (rat)
Aspiration hazard	: Not classified

Magnesium sulphate heptahydrate (10034-99-8)

Viscosity, kinematic	Not applicable
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Other information	: Health damage are not known nor expected under normal conditions of use.
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SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Magnesium sulphate heptahydrate (10034-99-8)

LC50 - Fish [1]	680 mg/l (96 h - Pimephales promelas (Fathead minnow) - The information is based on the data obtained from similar substances)
EC50 - Crustacea [1]	720 mg/l (48 h - Daphnia magna (Sand flea) - The information is based on the data obtained from similar substances)
EC50, algae, Chlorella vulgaris (sweet water algae)	2700 mg/l (18 days, the information given is based on data obtained from similar substances)
EC50, bacteria, Photobacterium phosphoreum	84 g/l (0.5 Hours)

12.2. Persistence and degradability

Magnesium sulphate heptahydrate (10034-99-8)

Persistence and degradability	Soluble in water. The ingredients dissociate in water. Ions resulting from this dissociation are nutrients of plant & microorganisms, so easily consumed by living organisms of the environment.
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12.3. Bioaccumulative potential

Magnesium sulphate heptahydrate (10034-99-8)	
Partition coefficient n-octanol/water (Log Pow)	No data available.
Bioaccumulative potential	It's unlikely. This substance is highly soluble and dissociable in water. Ions resulting from dissociation are found naturally in all forms of life.

12.4. Mobility in soil

Magnesium sulphate heptahydrate (10034-99-8)	
Ecology - soil	It is a fertilizer intended for use in agriculture, hydrosoluble, so that its mobility in soil is high.

12.5. Results of PBT and vPvB assessment

Magnesium sulphate heptahydrate (10034-99-8)	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. Other adverse effects

Additional information : An uncontrolled excess of fertilization can cause the pollution and eutrophication of water. When the product is use properly, according to instructions for use, it is considered unlikely to occur adverse effects on the environment. The product should be handled with appropriate precautions for chemicals.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to appropriate collection point. Contact an appropriate entity (Public Administration or Authorized Waste Manager) for information on your particular case. Contaminated packaging material should be treated same as the residuals.

Additional information : When totally empty and free of residues, containers are recyclable like any other packing.

Ecology - waste materials : Avoid release to the environment.

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SECTION 14: Transport information

In accordance with ADR / IMDG / RID

ADR	IMDG	RID
14.1. UN number		
Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name		
Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Rail transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

No REACH Annex XVII restrictions

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REACH Annex XIV (Authorisation List)

Magnesium sulphate heptahydrate is not on the REACH Annex XIV List

REACH Candidate List (SVHC)

Magnesium sulphate heptahydrate is not on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Nova Mag-S is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

Nova Mag-S is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Magnesium sulphate. COMPOUND SOLID INORGANIC MACRONUTRIENT FERTILISER. Mineral fertiliser (Mg,S) (16-32) is not subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

A Chemical Safety Assessment for this substance is not required.

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
1.1	Name	Modified	
8.2	Skin and body protection	Modified	

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Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
vPvB	Very Persistent and Very Bioaccumulative
LD50	Median lethal dose
LC50	Median lethal concentration
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	Sewage treatment plant

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Royal Decree 506/2013, of June 28, on fertilizer products (BOE No. 164 of 07/10/2013), and subsequent amendments (Spanish regulation concerning commerce of fertilisers). REGULATION (EU) 2019/1009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) N° 1069/2009 and (EC) N° 1107/2009 and repealing Regulation (EC) N° 2003/2003 (OJEU N° 170 of 25/06/2019), and its subsequent modifications and adaptations to the technical progress.

Safety Data Sheet (SDS), EU

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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.