

**BORTECH**

## SAFETY DATA SHEET

### Magnesium Sulphate Heptahydrate

According to Regulation (EC) No 1907/2006, Annex II, as amended.

Commission Regulation (EU) 2020/878 of 18 June 2020.

According to the REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577, as amended.

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

##### 1.1. Product identifier

<b>Product name</b>	Magnesium Sulphate Heptahydrate
<b>EU REACH registration number</b>	01-2119486789-11-0000
<b>CAS number</b>	10034-99-8
<b>EC number</b>	600-073-4

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

<b>Identified uses</b>	Detergent. Fertilizer. Technical use.
<b>Uses advised against</b>	No specific uses advised against are identified.

##### 1.3. Details of the supplier of the safety data sheet

<b>Supplier</b>	Bortech Dış Ticaret Ltd. Şti. Seyrantepe Mahallesi, Altınay Caddesi No: 90/12, 34418, Kağıthane/İstanbul www.bortech.com.tr
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<b>Contact person</b>	Yiğit Çuhadar - yigit@bortech.com.tr
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<b>Only Representative</b>	Cambridge Environmental Assessments / ADAS UK Ltd Mr. Peter Godfrey- Peter.Godfrey@cea-res.co.uk Battlegate Road Boxworth Cambridge CB23 4NN United Kingdom T: +44 (0) 1954 268200
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##### 1.4. Emergency telephone number

<b>Emergency telephone</b>	Bortech: +90 212 295 5493
<b>National emergency telephone number</b>	UK-National Poisons Information Service (NPIS) Email: director.birmingham.unit@npis.org Website: <a href="http://www.npis.org/">http://www.npis.org/</a>

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

**Classification (SI 2019 No. 720) and Regulation (EC) No 1272/2008**

<b>Physical hazards</b>	Not Classified
<b>Health hazards</b>	Not Classified
<b>Environmental hazards</b>	Not Classified

##### 2.2. Label elements

<b>EC number</b>	600-073-4
<b>Hazard statements</b>	NC Not Classified

##### 2.3. Other hazards

This substance is not classified as PBT or vPvB according to current UK and EU criteria.

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Product name	Magnesium Sulphate Heptahydrate
CAS number	10034-99-8
EC number	600-073-4
Chemical formula	MgSO <sub>4</sub> 7(H <sub>2</sub> O)
Composition comments	REACH Registration had been submitted for Magnesium Sulphate Anhydrous in accordance with the REACH Regulation.

#### 3.2. Mixtures

Description	Not applicable.
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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

Inhalation	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Eye contact	Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

Inhalation	Upper respiratory irritation. Coughing.
Ingestion	Nausea, vomiting.
Skin contact	Mechanical irritation.
Eye contact	May cause temporary eye irritation.

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

Notes for the doctor	Treat symptomatically.
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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Extinguish with foam, carbon dioxide, dry powder or water fog.
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#### 5.2. Special hazards arising from the substance or mixture

Specific hazards	Toxic gases may be formed.
Hazardous combustion products	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).

#### 5.3. Advice for firefighters

Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions**                      Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of dust. No smoking, sparks, flames or other sources of ignition near spillage.

#### 6.2. Environmental precautions

**Environmental precautions**                Avoid discharge into drains or watercourses or onto the ground.

#### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up**                    Avoid generation and spreading of dust. Collect spillage with a shovel and broom, or similar and reuse, if possible. Flush contaminated area with plenty of water.

#### 6.4. Reference to other sections

**Reference to other sections**                For personal protection, see Section 8.  
See Section 11 for additional information on health hazards.  
For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions**                          Avoid generation and spreading of dust. Avoid inhalation of dust and contact with skin and eyes. Take precautionary measures against static discharge. Do not eat, drink or smoke when using this product. Mechanical ventilation or local exhaust ventilation may be required.

**Advice on general occupational hygiene**    Wear a suitable dust mask. Eliminate all ignition sources if safe to do so.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions**                        Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from food, drink and animal feeding stuffs. Keep wetted with water.

#### 7.3. Specific end use(s)

**Specific end use(s)**                          The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure controls/Personal protection

#### 8.1. Control parameters

##### Occupational exposure limits

General dust (TWA-8h) : 10 mg/m<sup>3</sup>

**DNEL**    Workers - Inhalation; Long term systemic effects: 37.6 mg/m<sup>3</sup>  
Workers - Dermal; Long term systemic effects: 21.3 mg/kg bw/d

**PNEC**    Fresh water; 0.68 mg/l  
Marine water; 0.068 mg/l  
Intermittent release; 6.8 mg/l

#### 8.2. Exposure controls

##### Protective equipment



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<b>Appropriate engineering controls</b>	Provide adequate ventilation. Prevent accumulation of dust.
<b>Personal protection</b>	Provide eyewash station.
<b>Eye/face protection</b>	Wear tight-fitting, dust-resistant, chemical splash goggles if airborne dust is generated.
<b>Hand protection</b>	Wear protective gloves. Wear protective gloves made of the following material: Polyvinyl chloride (PVC). The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
<b>Other skin and body protection</b>	Wear apron or protective clothing in case of contact.
<b>Hygiene measures</b>	Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Wash promptly if skin becomes contaminated. Remove contaminated clothing and protective equipment before entering eating areas. Do not eat, drink or smoke when using this product.
<b>Respiratory protection</b>	Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m <sup>3</sup> . Use approved respirator if air contamination is above an acceptable level. Combination filter, type A2/P3.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Crystalline powder.
<b>Colour</b>	White.
<b>Odour</b>	No characteristic odour.
<b>pH</b>	pH (diluted solution): 5.5-7.5
<b>Melting point</b>	200°C
<b>Initial boiling point and range</b>	Not applicable.
<b>Flash point</b>	Not applicable.
<b>Flammability (solid, gas)</b>	No information available.
<b>Upper/lower flammability or explosive limits</b>	No information available.
<b>Vapour pressure</b>	No specific test data are available.
<b>Vapour density</b>	Not applicable.
<b>Relative density</b>	1.68 g/cm <sup>3</sup> @20 °C
<b>Solubility(ies)</b>	Soluble in water. 71 g/100g H <sub>2</sub> O @ 20°C
<b>Auto-ignition temperature</b>	No information available.
<b>Decomposition Temperature</b>	No information available.
<b>Viscosity</b>	Not applicable.
<b>Explosive properties</b>	There are no chemical groups present in the product that are associated with explosive properties.
<b>Oxidising properties</b>	There are no chemical groups present in the product that are associated with oxidising properties.
<b>Particle characteristics</b>	No information available.

#### 9.2. Other information

<b>Molecular weight</b>	246.48
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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

**Reactivity** There are no known reactivity hazards associated with this product.

#### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended.

#### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** None known.

#### 10.4. Conditions to avoid

**Conditions to avoid** Keep away from moisture.

#### 10.5. Incompatible materials

**Materials to avoid** Oxidising materials.

#### 10.6. Hazardous decomposition products

**Hazardous decomposition products** In case of fire: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.  
LD<sub>50</sub> >2000 mg/kg, Oral, Rat (OECD 425)

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.  
LD<sub>50</sub> >2000 mg/kg, Dermal, Rat (OECD Test Guideline 402) EPA OPPTS 870.1200

##### Skin corrosion/irritation

**Skin corrosion/irritation** Based on available data the classification criteria are not met.  
EU method B.46 (In Vitro Skin Irritation: Reconstructed Human Epidermis Model Test) and OECD Draft Proposal for a New Guideline: In Vitro Skin Irritation: Reconstructed Human Epidermis (RhE) Test Method  
Not irritating.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.  
OECD 405, EPA OPPTS 870.2400 (Acute Eye Irritation), EU Method B. Not irritating to the eyes.

##### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

Based on available data the classification criteria are not met.

##### Skin sensitisation

OECD 429, Local lymph node assay, EU Method B.42 (Skin Sensitisation: Local Lymph Node Assay), EPA OPPTS 870.2600 (Skin Sensitisation). Not sensitising.

##### Skin sensitisation

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### Germ cell mutagenicity

#### Genotoxicity - in vitro

Based on available data the classification criteria are not met.  
In vitro mammalian cell gene mutation test., Mouse lymphoma cells.: Negative.  
Bacterial reverse mutation test, (OECD 471): Negative.

#### Genotoxicity - in vivo

Based on available data the classification criteria are not met.

### Carcinogenicity

#### Carcinogenicity

Based on available data the classification criteria are not met.  
NOAEL 284 mg/kg bw/d, Oral, Rat, Female. 52 week  
NOAEL 256 mg/kg bw/d, Oral, Rat, Male. (Fischer 344)

#### IARC carcinogenicity

Not listed.

#### NTP carcinogenicity

Not listed.

### Reproductive toxicity

#### Summary

NOAEL  $\geq$ 1500 mg/kg bw/d, Oral, Rat

#### Reproductive toxicity - fertility

Based on available data the classification criteria are not met.

#### Reproductive toxicity - development

Based on available data the classification criteria are not met.

### Specific target organ toxicity - single exposure

#### STOT - single exposure

Based on available data the classification criteria are not met.

### Specific target organ toxicity - repeated exposure

#### STOT - repeated exposure

Based on available data the classification criteria are not met.

### Aspiration hazard

#### Aspiration hazard

Not relevant.

### Inhalation

Dust may irritate the respiratory system.

### Ingestion

May cause discomfort if swallowed.

### Skin contact

Mechanical irritation.

### Eye contact

Particles in the eyes may cause irritation and smarting.

### Chronic toxicity

NOAEL 256 mg/kg bw/d, Oral, Rat

## 11.2. Information on other hazards

### Information on other hazards

This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: Ecological information

### Ecotoxicity

Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

### 12.1. Toxicity

#### Acute aquatic toxicity

#### Acute toxicity - fish

LC<sub>50</sub>, 96 hour: 680 mg/l, Pimephales promelas (Fat-head Minnow)  
Potassium Sulfate  
(US-EPA)



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**Acute toxicity - aquatic invertebrates** LC<sub>50</sub>, 48 hour: 720 mg/l, Daphnia magna (US-EPA)

### 12.2. Persistence and degradability

**Persistence and degradability** Substance is inorganic. Not applicable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No information available.

### 12.4. Mobility in soil

**Mobility** The product is soluble in water.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current UK and EU criteria.

### 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** The product does not contain any endocrine disrupting substance.

### 12.7. Other adverse effects

**Other adverse effects** No information required.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal methods** Reuse or recycle products wherever possible. Larger quantities should be treated in a suitable plant or disposed of via a licensed waste disposal contractor. Dispose of contents/container in accordance with national regulations.

## SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number or ID number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

No.



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### 14.6. Special precautions for user

Not applicable.

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

Maritime transport in bulk according to IMO instruments Not applicable.

## SECTION 15: Regulatory information

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

<b>EU legislation</b>	Commission Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) 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 (as amended).
<b>Guidance</b>	Workplace Exposure Limits EH40.
<b>Authorisations (SI 2020 No. 1577 Annex XIV) and REACH 1907/2006, Annex XIV</b>	No specific authorisations are known for this product.
<b>Restrictions (SI 2020 No. 1577 Annex XVII) and REACH 1907/2006, Annex XVII</b>	No specific restrictions on use are known for this product.
<b>Seveso Directive - Control of major accident hazards</b>	Not applicable.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

<b>Abbreviations and acronyms used in the safety data sheet</b>	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. CAS: Chemical Abstracts Service. IATA: International Air Transport Association. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. Kow: Octanol-water partition coefficient. LD50: Lethal Dose to 50% of a test population (Median Lethal Dose). PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative.
<b>Key literature references and sources for data</b>	Source: European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a> Information and documents obtained from the owner company of product.
<b>Revision comments</b>	SDS has been revised under the current regulations.



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<b>Issued by</b>	Bülent Özdemir / CRAD www.crad.com.tr gbf@crad.com.tr
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