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

1.1. Product identifier

- Trade name: Magnesium Sulphate Anhydrous
- Chemical name: magnesium sulphate
- EC no: 231-298-2
- CAS No: 7487-88-9

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

1.2.1. Relevant identified uses

Use of the substance/mixture: Industrial use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier: K+S KALI GmbH
K+S KALI GmbH
Bertha-von-Suttner-Str. 7
34111 Kassel
T (+49) 561 9301-0 - F (+49) 561 9301-1753

Email competent person: sds@kft.de

1.4. Emergency telephone number

Emergency number: For Hazardous Materials [or Dangerous Goods] Incidents
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified

Adverse physicochemical, human health and environmental effects
To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

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

2.3. Other hazards

Other hazards not contributing to the classification:
Reacts with water, generates heat.
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. Substance

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>magnesium sulphate</td>
<td>(CAS No) 7487-88-9</td>
</tr>
<tr>
<td></td>
<td>(EC no) 231-298-2</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16
### 3.2. Mixture
Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures
- **First-aid measures after inhalation**: Remove person to fresh air and keep comfortable for breathing.
- **First-aid measures after skin contact**: Wash skin with plenty of water.
- **First-aid measures after eye contact**: Rinse eyes with water as a precaution.
- **First-aid measures after ingestion**: Call a poison center or a doctor if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed
No additional information available

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

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media
- Unsuitable extinguishing media: No information available.

#### 5.2. Special hazards arising from the substance or mixture
Hazardous decomposition products in case of fire: Toxic fumes may be released.

#### 5.3. Advice for firefighters
- Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
- Other information: Do not allow run-off from fire fighting to enter drains or water courses.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel
- Emergency procedures: Ventilate spillage area.

##### 6.1.2. For emergency responders
- Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions
Do not allow into drains or water courses.

#### 6.3. Methods and material for containment and cleaning up
- Methods for cleaning up: Mechanically recover the product.
- Other information: Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections
Information for safe handling. See Heading 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling
- Precations for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment.
- Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities
- Storage conditions: Store in a well-ventilated place. Keep cool.

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

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters
No additional information available
8.2. Exposure controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Hand protection:
Chemical resistant PVC gloves (to European standard EN 374 or equivalent). Nitrile rubber

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Dust production: dust mask with filter type P1

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Crystalline powder.</td>
</tr>
<tr>
<td>Colour</td>
<td>Light grey.</td>
</tr>
<tr>
<td>Odour</td>
<td>odourless.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>9 (25 °C, aqueous solution)</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>&gt; 700 °C</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable Non flammable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Density</td>
<td>2.7 g/cm³</td>
</tr>
<tr>
<td>Solubility</td>
<td>Water: 342 g/l Soluble</td>
</tr>
<tr>
<td>Log Pow</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Product is not explosive.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

9.2. Other information

Bulk density : 1300 kg/m³

SECTION 10: Stability and reactivity

10.1. Reactivity

Product is stable.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.
### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

- **magnesium sulphate (7487-88-9)**
  - LD50 oral rat: > 2000 mg/kg
  - LD50 dermal rat: > 2000 mg/kg

#### Skin corrosion/irritation

- Not classified (Based on available data, the classification criteria are not met)
  - pH: 9 (25 °C, aqueous solution)

#### Serious eye damage/irritation

- Not classified (Based on available data, the classification criteria are not met)
  - pH: 9 (25 °C, aqueous solution)

#### Respiratory or skin sensitisation

- Not classified (Based on available data, the classification criteria are not met)

#### Germ cell mutagenicity

- Not classified (Based on available data, the classification criteria are not met)

#### Carcinogenicity

- Not classified (Based on available data, the classification criteria are not met)

#### Reproductive toxicity

- Not classified (Based on available data, the classification criteria are not met)

#### Specific target organ toxicity (single exposure)

- Not classified (Based on available data, the classification criteria are not met)

#### Specific target organ toxicity (repeated exposure)

- Not classified (Based on available data, the classification criteria are not met)

#### Aspiration hazard

- Not classified (Not specifically applicable)

## SECTION 12: Ecological information

### 12.1. Toxicity

- **magnesium sulphate (7487-88-9)**
  - LC50 fish: 1680 mg/l (static; 96 h; Pimephales promelas)
  - EC50 Daphnia: 1720 mg/l (static; 48 h; daphnia magna)

### 12.2. Persistence and degradability

- **magnesium sulphate (7487-88-9)**
  - Persistence and degradability: Not applicable.

### 12.3. Bioaccumulative potential

- **magnesium sulphate (7487-88-9)**
  - Log Pow: Not applicable
  - Bioaccumulative potential: Not applicable

### 12.4. Mobility in soil

- **magnesium sulphate (7487-88-9)**
  - Ecology - soil: Not applicable

### 12.5. Results of PBT and vPvB assessment

- **magnesium sulphate (7487-88-9)**
  - 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

- Other adverse effects: No additional information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

- **Waste treatment methods**: Dispose of contents/container in accordance with licensed collector’s sorting instructions.
SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazards</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14.6 Special precautions for user

- Overland transport
  Not applicable

- Transport by sea
  Not applicable

- Air transport
  Not applicable

- Inland waterway transport
  Not applicable

- Rail transport
  Not applicable

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

No REACH Annex XVII restrictions
magnesium sulphate is not on the REACH Candidate List

15.1.2 National regulations

No additional information available

15.2 Chemical safety assessment

A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis
No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
None.

Abbreviations and acronyms:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods</td>
</tr>
<tr>
<td>ADR</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Road</td>
</tr>
<tr>
<td>ADN</td>
<td>European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways</td>
</tr>
<tr>
<td>RID</td>
<td>Regulations concerning the International Carriage of Dangerous Goods by Rail</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonised System of Classification and Labelling of Chemicals</td>
</tr>
</tbody>
</table>
# magnesium sulphate

Safety Data Sheet

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

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical Abstract Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>Median lethal dose</td>
</tr>
<tr>
<td>LC50</td>
<td>Median lethal concentration</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent Bioaccumulative Toxic</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and Very Bioaccumulative</td>
</tr>
</tbody>
</table>

Department issuing data specification sheet: KFT Chemieservice GmbH
Im Leuschnerpark. 3 64347 Griesheim
Postfach 1451 64345 Griesheim
Germany

Phone: +49 6155-8981-400  Fax: +49 6155 8981-500
Safety Data Sheet Service: +49 6155 8981-522

Contact person: Dr. Faiza Khan

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.