



## EPSO Top®

Version 2.0

Revision Date: 03.12.2009

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- **Trade name** EPSO Top®
- **Use** Fertiliser
- **Company** K+S KALI GmbH  
Bertha-von-Suttner-Str. 7  
34131 Kassel  
Germany  
Telephone: +49-(0)561-9301-0  
Telefax: +49-(0)561-9301-1753
- **Responsible Department** Marketing  
Telephone: +49-(0)561-9301-2356  
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- **Emergency telephone** Giftinformationszentrale Nord, Göttingen, Germany  
Telephone: +49 (0)551 19240

### 2. HAZARDS IDENTIFICATION

The product does not need to be labelled in accordance with EC directives or respective national laws.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Chemical nature

Chemical Name	CAS-No.	EINECS-No.	Classification	% w/w
Magnesium Sulphate Heptahydrate	10034-99-8	231-298-2		> 99

### 4. FIRST AID MEASURES

- **General advice** If symptoms persist, seek medical advice.
- **Inhalation** If breathed in, move person into fresh air.
- **Skin contact** Rinse with water.
- **Eye contact** Immediately flush eye(s) with plenty of water.
- **Ingestion** Clean mouth with water and drink afterwards plenty of water.

### 5. FIRE-FIGHTING MEASURES

- **Suitable extinguishing media** The product is not flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- **Extinguishing media which shall not be used for safety reasons** none
- **Specific hazards during fire fighting** Heating or fire can release toxic gas. Sulphur oxides



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- **Special protective equipment for fire-fighters** Respiratory protection
- **Further information** Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

### 6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions** Avoid breathing dust.
- **Environmental precautions** Do not let product enter drains.
- **Methods for cleaning up** Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

### 7. HANDLING AND STORAGE

#### Handling

- **Advice on safe handling** Avoid creating dust. Use only clean and dry utensils. Avoid inhalation, ingestion and contact with skin and eyes.
- **Advice on protection against fire and explosion** The product is not flammable. No special precautions required.

#### Storage

- **Requirements for storage areas and containers** Keep in a dry place.
- **Advice on common storage** No special restrictions on storage with other products.
- **German storage class** 13 Non Combustible Solids
- **Storage stability** Stable under recommended storage conditions.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Engineering measures

- none

#### Personal protective equipment

- **Respiratory protection** Effective dust mask.
- **Hand protection** not required under normal use
- **Eye protection** Safety glasses
- **Skin and body protection** not required
- **Hygiene measures** When using do not eat or drink. Wash hands before breaks and at the end of workday.
- **Protective measures** none

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

- **Form** crystalline



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- **Colour** white
- **Odour** odourless

### Safety data

- **pH** ca. 8 25 °C 5 % solution internal method
- **Flash point** not applicable
- **Autoignition temperature** none
- **Density** 1,7 g/cm<sup>3</sup>
- **Bulk density** ca.950 kg/m<sup>3</sup>
- **Water solubility** 340 g/l 20 °C 1.013 hPa
- **Oxidizing properties** none
- **Explosive properties** none

### 10. STABILITY AND REACTIVITY

- **Materials to avoid** None known.
- **Hazardous decomposition products** Sulphur oxides
- **Thermal decomposition** >700 °C
- **Hazardous reactions** Potential for exothermic hazard

### 11. TOXICOLOGICAL INFORMATION

- **Acute oral toxicity** Remarks: no data available
- **Acute inhalation toxicity** Remarks: no data available
- **Acute dermal toxicity** Remarks: no data available
- **Skin irritation** Result: No skin irritation  
Remarks: Practical experience.
- **Eye irritation** Result: non-irritant  
Remarks: Practical experience.
- **Sensitisation** Result: None known.  
Remarks: Information derived from practical experience.
- **Further information** The product contains no substances classified as hazardous to health in concentrations which should be taken into account. Health injuries are not known or expected under normal use.

### 12. ECOLOGICAL INFORMATION

Ecotoxicity effects	Value	Species	Method	Note
• <b>Toxicity to fish</b>	LC50 14000 mg MgSO <sub>4</sub> /l (24 h)	orfe, golden	DIN 38412	REF. 4
• <b>Toxicity to daphnia</b>	EC50 1700 mg MgSO <sub>4</sub> /l (24 h)	Daphnia magna	DIN 38412	REF. 4



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- **Toxicity to algae**                      EC50 2700 mg MgSO<sub>4</sub>/l (72 h)                      Desmodesmus subspicatus (green algae)                      DIN 38412                      REF. 4
- **Toxicity to bacteria**                      EC50 84000 mg MgSO<sub>4</sub>/l (30 min)                      Bacteria                      DIN 38412                      REF. 4
- **Biodegradability**                      not applicable
- **Physico-chemical removability**                      not applicable
- **Adsorbed organic bound halogens (AOX)**                      not applicable

### 13. DISPOSAL CONSIDERATIONS

- **Product**                      Test for use in agriculture.
- **Packaging**                      Completely emptied packagings can be given for recycling.
- **Contaminated packaging**                      Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.
- **Waste key for the unused product**                      02 01 09: Wastes of chemicals for the agriculture excepted of those, which are listed under 02 01 08

### 14. TRANSPORT INFORMATION

#### Further Information

Not classified as dangerous in the meaning of transport regulations.

### 15. REGULATORY INFORMATION

#### Labelling according to EC Directives

- The product does not need to be labelled in accordance with EC directives or respective national laws.

#### National legislation

- **Water contaminating class (Germany)**                      WGK 1: slightly water endangering
- **Other regulations**                      Observe national and local legal requirements.

### 16. OTHER INFORMATION

#### Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.



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### Sources of key data used to compile the Safety Data Sheet:

- **REF. 4** INNOLAB GmbH & Co. KG, Niedervellmarsche Str. 30, 34233 Fulda, Project No. 04 926035, 1994