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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
Responsible Department	Telephone: +49-(0)561-9301-0 Telefax: +49-(0)561-9301-1753 Marketing
	Telephone: +49-(0)561-9301-2356 Telefax: +49-(0)561-9301-1744 info@kali-gmbh.com
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

С	hemical nature				
	Chemical Name	CAS-No.	EINECS-No.	Classification	% w/w
•	Magnesium Sulphate Heptahydrate	10034-99-8	231-298-2		> 99
<u>4.</u>	FIRST AID MEASU	RES			
•	General advice Inhalation			sist, seek medical advice. love person into fresh air.	
•	Skin contact		Rinse with water.		
•	Eye contact		Immediately flue	sh eye(s) with plenty of water.	
•	Ingestion		Clean mouth wit	h water and drink afterwards ple	nty of water.
<u>5.</u>	FIRE-FIGHTING MI	EASURES			
•	Suitable extinguis	shing media		ot flammable.Use extinguishing i ocal circumstances and the surror	
•	Extinguishing me shall not be used reasons		none		
•	Specific hazards of fighting	during fire	Heating or fire c Sulphur oxides	an release toxic gas.	

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Special protective equipment Respiratory protection for fire-fighters **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.
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- Hand protection not required under normal use
- Eye protection •
 - Skin and body protection
- Hygiene measures When using do not eat or drink. Wash hands before breaks and at • the end of workday. none

Safety glasses

not required

Protective measures

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 		20 0		not applicable
Autoignition temperature	none			
Density	1,7 g/cm ³			
Bulk density	ca.950 kg/m ³			
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 exothe	rmic hazard		
Hazardous reactions	Potential for exothe	rmic hazard		
		rmic hazard		
Hazardous reactions <u>11. TOXICOLOGICAL INFORMATI</u>		rmic hazard		
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12. ECOLOGICAL INFORMATION

	Ecotoxicity effects	Value	Species	Method	Note
•	Toxicity to fish	LC50 14000 mg MgSO ₄ /l (24 h)	orfe, golden	DIN 38412	REF. 4
•	Toxicity to daphnia	ÈC50 1700 mg MgSO₄/I (24 h)	Daphnia magna	DIN 38412	REF. 4

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•	Toxicity to algae Toxicity to bacteria	EC50 2700 mg MgSO ₄ /I (72 h) EC50 84000 mg MgSO ₄ /I	Desmodesmus subspicatus (greer algae) Bacteria	DIN 38412 DIN 38412	REF. 4
		(30 min)			
•	Biodegradability	not applicable			
•	Physico-chemical removability	not applicable			

 Adsorbed organic bound not applicable halogens (AOX)

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
 <u>WGK 1:</u> slightly water endangering
 (Germany)
- 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 Fuldatal, Project No. 04 926035, 1994