



1. Identification of the substance/preparation

Name of product	Epsom Salt chemically pure, FCC
Manufacturer/distributor	K+S KALI GmbH Bertha-von-Suttner-Str. 7, D-34131 Kassel Postbox 10 20 29, D-34111 Kassel Phone +49 561 9301-0, Fax +49 561 9301-1753
Advice	Abt. ZU Phone +49 561 9301-1604 Fax +49 561 93854-5095
Emergency advice	Abt. ZU Phone +49 561 9301-1604
! Recommended intended purpose(s)	Food chemical, presuming FCC as legal basis
Effect of the substance / the formulation	Raw material for further processing Additive

2. Composition/information on ingredients

CAS-No. 010034-99-8	Magnesium Sulphate Heptahydrate (MgSO₄ x 7H₂O)
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3. Special hazards information for man and environment

R-phrases
not applicable

Special hazards information for humans and environment
no

4. First aid measures

General information
In the event of persistent symptoms receive medical treatment.

In case of inhalation
In the event of symptoms refer for medical treatment.

In case of skin contact
In case of contact with skin wash off with water.

In case of eye contact
In case of contact with eyes rinse thoroughly with water.

In case of ingestion
Rinse out mouth and give plenty of water to drink.

5. Fire-fighting measures

Suitable extinguishing material
Product does not burn, fire-extinguishing activities according to surrounding.

Extinguishing material that may not be used for safety reasons
no



Special exposure hazards arising from the substance, combustible products or resulting gases

In case of fire formation of dangerous gases possible.

Sulphur dioxide (SO₂)

Special protective equipment for firefighters

Do not inhale explosion and/or combustion gases.

Additional information

Collect contaminated firefighting water separately, must not be discharged into the drains.

6. Accidental release measures

Personal precautions

Avoid dust formation.

Environmental precautions

Do not discharge into the drains or bodies of water..

Methods for cleaning up/taking up

Disposal according to regulations.

Flush away residues with water.

Take up mechanically and send for disposal.

Additional Information

Informations for safe handling look up chapter 7.

Informations for personal protective equipment look up chapter 8.

Informations for disposal look up chapter 13.

7. Handling and storage

Advice on safe handling

No special measures necessary if used correctly.

Take the usual precautions when handling with chemicals.

Advice on protection against fire and explosion

The product is not combustible.

No special measures necessary.

Requirements for storage rooms and vessels

No special measures required.

Advice on storage compatibility

Keep away from water.

Further information on storage conditions

Store in a dry place.

Product is hygroscopic.

Storage group 13

Information on storage stability

Unlimited stability.

8. Exposure controls / personal protection

Additional advice on system design

no

Respiratory protection

In case of dust formation wear micro dust mask.



Hand protection

Rubber gloves

Eye protection

tightly fitting goggles

Skin protection

no

General protective measures

no

Hygiene measures

Do not eat or drink when working.

Brush soiled clothing.

After work wash thoroughly.

9. Physical and chemical properties

Form

crystalline

Colour

whitish

Odour

odourless

Data relevant for safety

	Value	Temperature	at	Method	Remark
pH value in delivery state	7	20 °C	340 g/l	DIN 38404-5	g MgSO ₄ / l H ₂ O
starts to melt	> 48 °C				
Flash point	not applicable				
Flammable solid	no				
Combustion temperature	no				
Autoignition	no				
Vapour pressure	10,6 mbar	20 °C			H ₂ O
Density	1,7 g/cm ³	20 °C	1013 hPa		
Bulk density	abt. 1000 kg/m ³				
Solubility in water	340 g/l	20 °C	1013 hPa		
Solubility/other	not determined				
Partition coefficient (log p_{OW})	not determined				
Combustion value	1				
Oxidizing properties	no				
Explosive properties	no				



Additional information

Physical dates refer to pure product.

10. Stability and reactivity

Conditions to avoid

No hazardous reactions known.

Materials to avoid

No hazardous reactions known.

Hazardous decomposition products

Toxic gases/vapours
Sulphurous oxides (SO_x)

Thermal decomposition

Remark >700°C

11. Toxicological information

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD 50 acute oral	not determined			
LD 50 acute dermal	not determined			
LC 50 acute inhalation	not determined			
Irritability skin	no			experiences
Irritability eye	no			experiences
Sensitization skin	no			experiences
Sensitization respiratory system	no			experiences

Toxicity test (Additional information)

No experimental indication of genotoxic effects.
Substance has no mutagen activity (Ames test).

Additional information

Toxical dates refer to pure product.

Our dates do not cover total texture toxic judgement. Follow the usual hygienic directives for handling with chemicals.

12. Ecological information



Data on elimination (persistence and degradability)

	Elimination rate	Method of analysis	Method	Validation
Physico-chemical degradability	Inorganic product, cannot be eliminated from the water by biological purification processes.		not applicable	
Biological degradability	Inorganic product, cannot be eliminated from the water by biological purification processes.		not applicable	
Degradability	Inorganic product, cannot be eliminated from the water by biological purification processes.		not applicable	
Biological eliminability	Inorganic product, cannot be eliminated from the water by biological purification processes.		not applicable	

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 28670 mg/l (24 h)	Leuciscus idus	DIN 38412 L15	Ref. (1)
Daphnia	EC50 3480 mg/l (24 h)	Daphnia magna	DIN 38412 L11	Ref. (1)
Algae	EC50 5530 mg/l (72 h)	Scenedesmus subspicatus	DIN 38412 L34	Ref. (1)
Bacteria	EC50 172000 mg/l (30 min)	Photobacterium phosphoreum	DIN 38412 L9	Ref. (1)

Behaviour in sewage plant

When low concentrations are discharged correctly into adapted biological sewage treatment plants, interference with the degradation activity of activated sludge is not likely.

Additional ecological information

	Value	Method	Remark
AOX	not applicable		

General regulation

Product is not allowed to discharge into aquatic environment.

13. Disposal considerations

Waste code No.

06 03 14

Name of waste

solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

Recommendations for the product

In accordance with regulations for special waste, must be taken, after pretreatment, to an authorised special waste disposal site.

Recommendations for packaging

Uncontaminated packaging may be taken for recycling.

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Recommended cleansing agent

no



14. Transport information

Land and inland navigation transport (ADR/RID/GGVS/GGVE/ADNR)

Remarks

No hazardous material as defined by the prescriptions.

Transport/further informations

no

15. Regulatory information

Remarks for classification

no

R-phrases

not applicable

S-phrases

not applicable

Special labelling for certain preparations

no

National regulations

Restriction of occupation

no

Decree for case of interference/remarks

not applicable

Classification according to VbF/remarks

VbF: is not subject to decree for compostible liquids.

German TA LUFT remarks

not applicable

Water hazard class

1 KBwS-classification

Other regulations, restrictions and prohibition regulations

no

16. Other information

Recommendend uses and restrictions

no

Further information

The information contained herein is based on our present knowledge and is not meant to guarantee product properties. Recipients of our product must take responsibility for observing existing laws and regulations.

Refer to product information paper.

All declarations of safety-data-sheet refer to pure substance.

CAS-No. refers to pure substance.

Sources of key data used

Ref. (1): INNOLAB GmbH & CO.KG, Niedervellmarsche Str. 30, D-34233 Fulda, Project No.: 04/926035, 1994
