



1. Identification of the substance/preparation

Name of product	Sulfate of Potash 'gran'
Manufacturer/distributor	Kali und Salz GmbH Friedrich-Ebert-Straße 160, D-34111 Kassel Postbox 10 20 29, D-34111 Kassel Phone (+49)561/301-0, Fax (+49)561/301-1436
Advice	Abt. COU Phone (+49)561/301-1604 Fax (+49)561/301-1436
Emergency advice	Abt. COU Phone (+49)561/301-1604

2. Composition/information on ingredients

CAS-No. 007778-80-5	Potassium sulfate (K₂SO₄)
EEC-No. (EINECS/ELINCS) 231-915-5	
Additional advice	
Designation according to EC European Community Fertilizer-Directive 76/116/EWG and supplementary directives: Potassium sulfate mit S 50 May contain anti-dusting additives in very small quantities.	

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	Ensure of fresh air. 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, combustiv products or resulting gases	In the event of fire the following can be released: Sulfur oxide, K ₂ O
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

Avoid dust formation.

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.

Storage group 10-13

Information on storage stability

Unlimited stability.

8. Exposure controls / personal protection

Additional advice on system design

no

Ingredients with occupational exposure limits to be monitored

CAS-No.	Name	Code	[mg/m ³]	[ml/m ³]	Remark
	dust	MAK	6		general limit(RFA)

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

Avoid contact with eyes and skin

Do not inhale dust.



Hygiene measures

Do not eat or drink when working.
Brush soiled clothing.
After work wash thoroughly.

9. Physical and chemical properties

Form
granules

Colour
white / grey

Odour
odourless

Data relevant for safety

	Value	Temperature	At	Method	Remark
pH value in delivery state	7	20 °C	111 g/l	DIN 38404-5	neutral
boiling point	1689 °C		1013 hPa		Ref. (1)
melting point	1069 °C				Ref. (1)
Flash point	not applicable				
Flammable solid	no				
Flammable gas	no				
Combustion temperature	no				
Autoignition	no				
Lower explosion limit	no				
Upper explosion limit	no				
Vapour pressure	0 mbar	20 °C			
Density	2,66 g/cm ³	20 °C	1013 hPa		Ref. (1)
Bulk density	approx. 1300 kg/m ³				
Solubility in water	111 g/l	20 °C	1013 hPa		Ref. (1)
Solubility/other	0,01 Wt-%	25 °C	methanol		Ref. (1)

insoluble in most
of organic solvents

**Partition coefficient (log
p_{OW})** not determined

Viscosity 1 not applicable

Solvent separation test not applicable

Combustion value 1

Oxidizing properties
no

Explosive properties
no

Additional information

Physical dates refer to pure product.



10. Stability and reactivity

Conditions to avoid

If product is heated above decomposition temperature toxic vapours may be released.

Materials to avoid

No hazardous reactions known.

Hazardous decomposition products

Toxic gases/vapours
Sulphurous oxides (SO_x), K₂O

Thermal decomposition

Remark >700°C

11. Toxicological information

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD 50 acute oral	6600 mg/kg	rat		Ref. (2)
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

Toxicological data refer to pure product.
Our data are not enough for 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			not applicable	
	Inorganic product, cannot be eliminated from the water by biological purification processes.			
Biological degradability			not applicable	
	Inorganic product, cannot be eliminated from the water by biological purification processes.			
Degradability			not applicable	
	Inorganic product, cannot be eliminated from the water by biological purification processes.			
Biological eliminability			not applicable	
	Inorganic product, cannot be eliminated from the water by biological purification processes.			

**Ecotoxicological effects**

	Value	Species	Method	Validation
Fish	LC50 1692-2380 mg/l (96 h)	bleak	DIN 38412 part 31	Ref. (3)
Daphnia	EC50 890 mg/l (48 h)	Daphnia magna	DIN 38412 part 11	Ref. (3)
Algae	EC50 2900 mg/l (72 h)	Scenedesmus subspicatus	DIN 38412 part 33	Ref. (3)
Bacteria	EC20 > 20 g/l (16 h)	Pseudomonas putida	DIN 38412 part 8	Ref. (3)

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.**

02 01 05

06 03 03

Name of waste

agrochemical wastes

solid salts containing sulphates, sulphites or sulphides

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

Untamated 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.

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/ not applicable
remarks**Classification according to VbF/** VbF: is not subject to decree for compostible liquids.
remarks**German TA LUFT remarks**

no

Water hazard class 1 KBwS-classification**Other regulations, restrictions and prohibition regulations**

no

16. Other information**Recommend 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): Gmelins Handbuch der Anorganischen Chemie, System-Nr. 22, Verlag Chemie Berlin, 8. Auflage

Ref. (2): GISAAA 50 (7), 24, 1985

Ref. (3): Data sheet No. 255, Kommission Bewertung wassergefährlicher Stoffe, Bundesgesundheitsamt, P.O. Box 330013, D-14191 Berlin, 1992