



potassium sulphate

Safety Data Sheet

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

Date of issue: 7/22/2016 Revision date: 7/22/2016 Version: 5.00

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

1.1. Product identifier

Trade name : KALISOP® fine max. 0.5 % Cl
KALISOP® fine max. 1.0 % Cl
KALISOP® fine max. 1.5 % Cl
KALISOP® crystalline max. 0.5 % Cl
KALISOP® gran. max. 1.0% Cl
KALISOP® gran. max. 1.5% Cl
KALISOP® gran. premium
KALISOP® gran. mini
HORTISUL® max. 0.5% Cl
soluSOP® 52

Chemical name : potassium sulphate

EC no : 231-915-5

CAS No : 7778-80-5

REACH registration No : 01-2119489441-34-0018

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 : Fertilizer

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
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

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

potassium sulphate

Safety Data Sheet

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

SECTION 3: Composition/information on ingredients

3.1. Substance

Name	Product identifier
potassium sulphate	(CAS No) 7778-80-5 (EC no) 231-915-5 (REACH-no) 01-2119489441-34-0018

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 general	: If symptoms persist, call a physician.
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

Suitable extinguishing media	: Water spray. Dry powder. Foam.
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

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

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

Precautions 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.

potassium sulphate

Safety Data Sheet

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

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)

Fertilizer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

potassium sulphate (7778-80-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	21.3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	37.6 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	12.8 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	11.1 mg/m ³
Long-term - systemic effects, dermal	12.8 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.68 mg/l
PNEC aqua (marine water)	0.068 mg/l
PNEC aqua (intermittent, freshwater)	6.8 mg/l
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline powder.
Colour	: Light grey.
Odour	: none to slight.
Odour threshold	: No data available
pH	: 6 - 10 (50 g/L, 20 °C)
Relative evaporation rate (butylacetate=1)	: Not applicable
Melting point	: 1069 °C
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: > 700 °C
Flammability (solid, gas)	: Not flammable
Vapour pressure	: Not applicable
Relative vapour density at 20 °C	: Not applicable
Relative density	: Not applicable
Density	: 2.66 g/cm ³

potassium sulphate

Safety Data Sheet

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

Solubility	: Water: 108 g/l (20 °C)
Log Pow	: Not applicable
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: Product is not explosive.
Oxidising properties	: Not applicable.
Explosive limits	: Not applicable

9.2. Other information

Bulk density	: 1240 kg/m ³
--------------	--------------------------

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	: Not classified
----------------	------------------

potassium sulphate (7778-80-5)	
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: 6 - 10 (50 g/L, 20 °C)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 6 - 10 (50 g/L, 20 °C)
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

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
-------------------	---

potassium sulphate (7778-80-5)	
LC50 fish 1	680 mg/l (static; 96 h; Pimephales promelas)
EC50 Daphnia 1	720 mg/l (static; 48 h; Daphnia magna)
EC50 72h algae (1)	> 100 mg/l

12.2. Persistence and degradability

potassium sulphate (7778-80-5)	
Persistence and degradability	Not applicable.

potassium sulphate

Safety Data Sheet

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

12.3. Bioaccumulative potential

potassium sulphate (7778-80-5)

Log Pow	Not applicable
Bioaccumulative potential	Not applicable.

12.4. Mobility in soil

potassium sulphate (7778-80-5)

Ecology - soil	Not applicable.
----------------	-----------------

12.5. Results of PBT and vPvB assessment

potassium sulphate (7778-80-5)

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

- Regional legislation (waste) : Disposal must be done according to official regulations. Product is used as a fertilizer. Check the possibility for agricultural use before landfilling.
- Waste disposal recommendations : Entrust the uncontaminated packaging to a licensed waste contractor. Comply with local regulations for disposal. Do not re-use empty containers without proper cleaning or reconditioning.
- European List of Waste (LoW) code : 02 01 09 - agrochemical waste other than those mentioned in 02 01 08

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

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

potassium sulphate

Safety Data Sheet

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

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

potassium 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

For this substance a chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

None.

Abbreviations and acronyms:

IMDG	International Maritime Dangerous Goods
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
RID	Regulations concerning the International Carriage of Dangerous Goods by Rai
IATA	International Air Transport Association
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
CAS	Chemical Abstract Service
LD50	Median lethal dose
LC50	Median lethal concentration
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative

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