KALISOP® fine max. 1.0 % Cl

Version: 4.1 Revision Date: 16.01.2012

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : KALISOP® fine max. 1.0 % Cl

Registration number : 01-2119489441-34-0018

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Fertilizers

1.3 Details of the supplier of the safety data sheet

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
E-mail address : info@kali-gmbh.com

1.4 Emergency telephone number

Giftinformationszentrale Nord, Göttingen, Germany
Telephone:+49 (0)551 19240

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Classification(67/548/EEC,1999/45/EC)

This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements

Labelling(REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Labelling according to EC Directives ()

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

2.3 Other hazards

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Contact with hot product will cause thermal burns.

3. Composition/information on ingredients

3.1 Substances

Chemical Name	CAS-No. EINECS-No. / ELINCS No.	Concentration [%]
Potassium Sulfate (K_2SO_4)	7778-80-5 231-915-5	> 91

4. First aid measures

4.1 Description of first aid measures

General advice : When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If breathed in, move person into fresh air.

In case of skin contact : Rinse with water.

In case of eye contact : Immediately flush eye(s) with plenty of water.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : For specialist advice physicians should contact the Poisons Information Service.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : The product is not flammable.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : none

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Heating or fire can release toxic gas.
Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters : Respiratory protection

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid breathing dust.

6.2 Environmental precautions

Environmental precautions : Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Sweep up and shovel into suitable containers for disposal.
After cleaning, flush away traces with water.

6.4 Reference to other sections

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid dust formation.
No special precautions required.

Advice on protection against fire and explosion : The product is not flammable.
No special protective measures against fire required.

7.2 Conditions for safe storage, including any incompatibilities

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

Other data : Stable under recommended storage conditions.

7.3 Specific end uses

8. Exposure controls/personal protection

8.1 Control parameters

DNEL : End Use: Workers
Exposure routes: Skin contact
Potential health effects: Chronic effects
Value: 21,3 mg/kg

DNEL : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Chronic effects
Value: 37,6 mg/m3

DNEL	:	End Use: Consumers Exposure routes: Skin contact Potential health effects: Chronic effects Value: 12,8 mg/kg
DNEL	:	End Use: Consumers Exposure routes: Inhalation Potential health effects: Chronic effects Value: 11,1 mg/m3
DNEL	:	End Use: Consumers Exposure routes: Ingestion Potential health effects: Chronic effects Value: 12,8 mg/kg
PNEC	:	Fresh water Value: 0,68 mg/l
PNEC	:	Marine water Value: 0,068 mg/l
PNEC	:	Ceiling Limit Value Value: 6,8 mg/l

8.2 Exposure controls

Engineering measures

Provide adequate ventilation.

Personal protective equipment

Respiratory protection	:	Effective dust mask.
Hand protection	:	When handling hot material, use heat resistant gloves.
Eye protection	:	No special protective equipment required.
Skin and body protection	:	Wear suitable protective clothing.
Hygiene measures	:	When using do not eat or drink. Wash hands before breaks and at the end of workday.
Protective measures	:	Do not breathe dust.
	:	When working with hot material, avoid contact with skin.

Environmental exposure controls

General advice	:	Do not let product enter drains.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	crystalline

Colour	:	light grey
Odour	:	very faint
pH	:	ca. 8 - 10, 25 °C, Aqueous solution
Melting point/range	:	1.069 °C
Flash point	:	Not applicable
Density	:	2,66 g/cm³
Water solubility	:	108 g/l, 20 °C
Autoignition temperature	:	none
Thermal decomposition	:	> 700 °C
Explosive properties	:	none
Oxidizing properties	:	none

9.2 Other information

Bulk density	:	ca. 1.250 kg/m³

10. Stability and reactivity

10.1 Reactivity

Stable

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid	:	None known.

10.5 Incompatible materials

Materials to avoid	:	None known.

10.6 Hazardous decomposition products

Hazardous decomposition products	:	No decomposition if stored and applied as directed.

11. Toxicological information

11.1 Information on toxicological effects

Product

Acute oral toxicity	:	LD50: > 2.000 mg/kg, rat, OECD 425
Acute inhalation toxicity	:	LC50: > 1,2 mg/l, OECD Guideline 433
Acute dermal toxicity	:	LD50: > 2.000 mg/kg, rat, OECD Test Guideline 402
Skin corrosion/irritation	:	Result: No skin irritation, EU Method B.46
Serious eye damage/eye	:	rabbit, Result: No eye irritation, OECD Test Guideline 405

irritation

Respiratory or skin sensitization	:	Result: Does not cause skin sensitization., OECD Guideline 429
Germ cell mutagenicity		
Genotoxicity in vitro	:	Result: negative, Mutagenicity (Escherichia coli - reverse mutation assay)
Genotoxicity in vivo	:	no data available
Assessment	:	Not mutagenic in Ames Test.
Carcinogenicity	:	rat, OECD Test Guideline 453 Did not show carcinogenic or mutagenic effects in animal experiments.
Reproductive toxicity	:	rat, NOAEL: >= 1.500 mg/kg, OECD Guideline 422 Assessment: Animal testing did not show any effects on fertility.
Teratogenicity	:	rat, NOAEL: >= 1.500 mg/kg, OECD Guideline 422 Assessment: Did not show mutagenic or teratogenic effects in animal experiments.
STOT - repeated exposure	:	rat, Oral, NOAEL: 256 mg/kg, OECD Test Guideline 453
Further information	:	Health injuries are not known or expected under normal use.

12. Ecological information

12.1 Toxicity

Product:

Toxicity to fish	:	LC50: 680 mg/l, 96 h, Pimephales promelas (fathead minnow), USEPA 1991 EPA/600/4-90/027
Toxicity to daphnia and other aquatic invertebrates.	:	LC50: 720 mg/l, 48 h, Daphnia magna (Water flea), USEPA 1991 EPA/600/4-90/027
Toxicity to algae	:	EC50: 2.700 mg/l, 18 DAY, Chlorella vulgaris (Fresh water algae)
Toxicity to bacteria	:	EC20: > 20 g/l, 16 h, Pseudomonas putida, DIN 38412

12.2 Persistence and degradability

Product:

Biodegradability	:	The methods for determining biodegradability are not

applicable to inorganic substances.

12.3 Bioaccumulative potential

Product:

Bioaccumulation	:	Bioaccumulation is unlikely.

12.4 Mobility in soil

Product:

Mobility	:	Not applicable
Distribution among environmental compartments	:	Not applicable
Physico-chemical removability	:	Not applicable

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Product:

Adsorbed organic bound halogens (AOX)	:	Not applicable

13. Disposal considerations

13.1 Waste treatment methods

Product	:	Check if agriculture use is possible.
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

14.1 Land transport

ADR

Remarks	:	Not a dangerous substance as defined in the above regulations.
Tunnel restriction code	:	Not relevant

14.2 Sea transport

ADNR

Remarks	:	Not classified as dangerous in the meaning of transport regulations.

IMDG

Remarks	:	Not classified as dangerous in the meaning of transport regulations.

14.3 Air transport

IATA-DGR

Remarks : Not classified as dangerous in the meaning of transport regulations.

14.4 Special precautions for user

Not relevant

14.5 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Water contaminating class (Germany) : WGK 1 slightly water endangering

Notification status

REACH : This substance has been registered according to Regulation (EC) No. 1907/2006 (REACH).

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

16. Other 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.