



## Patentkali®

Version: 2.2

Revision Date: 12.01.2012

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

#### 1.1 Product identifier

Trade name : Patentkali®

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

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

#### 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 (67/548/EEC)

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

#### 2.3 Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).  
This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

### 3. Composition/information on ingredients

#### 3.2 Mixtures

##### Hazardous components



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Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
<b>Contains no hazardous ingredients according to GHS :</b>				
Potassium Sulfate (K <sub>2</sub> SO <sub>4</sub> )	7778-80-5 231-915-5 01- 2119489441- 34-0018			> 48
Magnesium Sulphate (MgSO <sub>4</sub> )	7487-88-9 231-298-2			> 29

### 4. First aid measures

#### 4.1 Description of first aid measures

- General advice : Get medical attention if symptoms occur.  
Show this safety data sheet to the doctor in attendance.
- 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 eye irritation persists, consult a specialist.
- 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 : Respiratory protection



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

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### 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 : Use a suitable vacuum cleaner.  
After cleaning, flush away traces with water.

#### 6.4 Reference to other sections

For personal protection see section 8.

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### 7. Handling and storage

#### 7.1 Precautions for safe handling

Advice on safe handling : Avoid creating dust.

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

: Not relevant

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### 8. Exposure controls/personal protection

#### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

**Engineering measures**



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Provide adequate ventilation.

### Personal protective equipment

- Respiratory protection : Effective dust mask.
- Hand protection : not required under normal use
- Eye protection : Safety glasses
- Skin and body protection : No special protective equipment required.  
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.

### 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 : granular
- Colour : light grey
- pH : ca. 9 - 10, 25 °C, Aqueous solution
- Boiling point/boiling range : Not applicable
- Flash point : Not applicable
- Flammability (solid, gas) : The product is not flammable.
- Lower explosion limit : Not applicable
- Upper explosion limit : Not applicable
- Vapour pressure : Not applicable
- Water solubility : soluble
- Partition coefficient: n-octanol/water : no data available
- Autoignition temperature : Not applicable
- Ignition temperature : Not applicable
- Explosive properties : Not applicable
- Oxidizing properties : Not applicable

### 9.2 Other information

- Bulk density : ca. 1.190 kg/m<sup>3</sup>



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### 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.  
Heating or fire can release toxic gas.  
Sulphur oxides

### 11. Toxicological information

#### 11.1 Information on toxicological effects

##### Product

- Acute oral toxicity : The substance or mixture has no acute oral toxicity,  
Contains no hazardous ingredients according to GHS
- Acute inhalation toxicity : The substance or mixture has no acute inhalation toxicity,  
Contains no hazardous ingredients according to GHS
- Acute dermal toxicity : The substance or mixture has no acute dermal toxicity,  
Contains no hazardous ingredients according to GHS
- Skin corrosion/irritation : Result: No skin irritation, Contains no hazardous ingredients  
according to GHS
- Serious eye damage/eye irritation : Result: non-irritant, Contains no hazardous ingredients  
according to GHS
- Respiratory or skin sensitization : Result: Does not cause skin sensitization., Contains no  
hazardous ingredients according to GHS  
: Result: Does not cause respiratory sensitization., Contains no  
hazardous ingredients according to GHS
- Carcinogenicity : Contains no ingredient listed as a carcinogen
- Reproductive toxicity : Contains no ingredient listed as toxic to reproduction
- Teratogenicity : Contains no ingredient listed as toxic to reproduction
- STOT - single exposure : Assessment: The substance or mixture is not classified as  
specific target organ toxicant, single exposure.  
Remarks: Contains no hazardous ingredients according to



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### GHS

- STOT - repeated exposure : Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.  
Remarks: Contains no hazardous ingredients according to GHS
- Further information : The product contains no substances classified as hazardous to health in concentrations which should be taken into account., Health injuries are not known or expected under normal use.

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## 12. Ecological information

### 12.1 Toxicity

**Product:**

- Toxicity to fish : Contains no hazardous ingredients according to GHS
- Toxicity to daphnia and other aquatic invertebrates. : Contains no hazardous ingredients according to GHS
- Toxicity to algae : Contains no hazardous ingredients according to GHS
- Toxicity to bacteria : Contains no hazardous ingredients according to GHS
- Toxicity to fish(Chronic toxicity) : Contains no hazardous ingredients according to GHS
- Toxicity to daphnia and other aquatic invertebrates.(Chronic toxicity) : Contains no hazardous ingredients according to GHS

### 12.2 Persistence and degradability

**Product:**

- Biodegradability : Not applicable

### 12.3 Bioaccumulative potential

**Product:**

- Bioaccumulation : Not applicable

### 12.4 Mobility in soil

**Product:**

- Physico-chemical removability : Not applicable

### 12.5 Results of PBT and vPvB assessment

**Product:**

- Assessment : This mixture contains no substance considered to be



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persistent, bioaccumulating nor toxic (PBT).  
This mixture contains no substance 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 : Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

## 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

#### 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**



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REACH : This mixture contains only ingredients which have been registered, or are exempt from registration, according to Regulation (EC) No. 1907/2006 (REACH).  
This mixture contains no ingredient which is subject to an authorisation according to Regulation (EC) No. 1907/2006 (REACH).

### 15.2 Chemical Safety Assessment

Not relevant

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### 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.