



## Potassium Chloride for Industrial Applications

Version 2.1

Revision Date: 25.11.2008

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

- **Trade name** Potassium Chloride approx. 96 % KCl, technical  
Potassium Chloride approx. 97 % KCl, technical standard  
Potassium Chloride approx. 99 % KCl, technical industrial  
Potassium Chloride 99.3 % KCl, technically pure  
Potassium Chloride 99.7 % KCl, chemically pure
- **Use** Miscellaneous industrial applications
- **Company** K+S KALI GmbH  
Bertha-von-Suttner-Str. 7  
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Germany  
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- **Responsible Department** Marketing  
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- **Emergency telephone** Giftinformationszentrale Nord, Göttingen, Germany  
Telephone: +49 (0)551 19240

### 2. HAZARDS IDENTIFICATION

- **Risk advice to man and the environment** Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	EINECS-No.	Symbol(s)	R-phrase(s)	Content [%]
Potassium Chloride	7447-40-7	231-211-8			> 95

#### **Special Notes/Explanations:**

May contain anti-dusting additives in very small quantities.  
May contain yellow potassium prussiate and sodium carbonate as anti-caking additives in very small quantities.

### 4. FIRST AID MEASURES

- **General advice** If symptoms persist, seek medical advice.
- **Inhalation** Fresh air.
- **Skin contact** Rinse with water.
- **Eye contact** Immediately flush eye(s) with plenty of water.
- **Ingestion** Clean mouth with water and drink afterwards plenty of water.



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### 5. FIRE-FIGHTING MEASURES

- **Suitable extinguishing media** Product does not burn, fire-extinguishing activities according to surrounding.
- **Extinguishing media which shall not be used for safety reasons** none
- **Specific hazards during fire fighting** Evolution of toxic gases/vapours. hydrogen chloride
- **Special protective equipment for fire-fighters** Respiratory protection
- **Further information** Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

### 6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions** Avoid breathing dust.
- **Environmental precautions** Do not let product enter drains.
- **Methods for cleaning up** Sweep up and shovel into suitable containers for disposal. Flush away residues with water.

### 7. HANDLING AND STORAGE

#### Handling

- **Advice on safe handling** No special measures necessary provided product is used correctly. Handle in accordance with good industrial hygiene and safety practice.
- **Advice on protection against fire and explosion** The product is not flammable. No special precautions required.

#### Storage

- **Requirements for storage areas and containers** Keep in a dry place.
- **Storage with other substances** Segregate from strong acids. Keep away from water.
- **German storage class** 13 Non Combustible Solids
- **Storage stability** May be kept indefinitely if stored properly.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Engineering measures

- none

#### Personal protective equipment

- **Respiratory protection** In case of dust formation wear micro dust mask.
- **Hand protection** Hand protection not required.
- **Eye protection** In case of dust formation: Safety glasses



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- **Skin and body protection** not required
- **Hygiene measures** When using do not eat or drink. Wash hands before breaks and at the end of workday.
- **Protective measures** none

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

- **Form** crystalline
- **Colour** white
- **Odour** almost odourless

#### Safety data

	Value	Temperature	Condition	Note
• pH	8 - 9	25 °C	5 % solution	internal method
• Melting temperature	770 °C			REF. 1
• Flash point				not applicable
• Autoignition temperature	none			
• Density	1,989 g/cm <sup>3</sup>			
• Bulk density	ca. 1.100 kg/m <sup>3</sup>			
• Water solubility	342 g/l	20 °C	1.013 hPa	REF. 1
• Oxidizing properties	none			
• Explosive properties	none			

### 10. STABILITY AND REACTIVITY

- **Conditions to avoid** Note: corrosive to metals
- **Hazardous decomposition products** No hazardous decomposition products known.
- **Hazardous reactions** Reacts with strong acids.  
Reacts with strong oxidizing agents.

### 11. TOXICOLOGICAL INFORMATION

- **Acute oral toxicity** LD50 rat  
Dose: 2.600 mg/kg  
REF. 2
- **Acute inhalation toxicity** Remarks: no data available
- **Acute dermal toxicity** Remarks: no data available
- **Skin irritation** Result: non-irritant  
Remarks: Practical experience.
- **Eye irritation** Result: non-irritant  
Remarks: Practical experience.
- **Sensitisation** Result: non-sensitizing  
Remarks: Practical experience.



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- **Further information** No experimental evidence available regarding harmful effects on human fertility.  
Substance has no mutagen activity (Ames test).  
Our dates do not cover total texture toxic judgement.

### 12. ECOLOGICAL INFORMATION

Ecotoxicity effects	Value	Species	Method	Note
• Toxicity to fish	LC50 2.300 mg/l (48 h)	golden orfe	DIN 38412	REF. 3
• Toxicity to daphnia	EC50 825 mg/l (48 h)	Daphnia magna	DIN 38412	REF. 3
• Toxicity to algae	EC50 2.500 mg/l (72 h)	Algae	DIN 38412	REF. 3
• Toxicity to bacteria	EC20 > 9.600 mg/l (0,08 h)	Bacteria	DIN 38412	REF. 3
• Biodegradability	not applicable			
• Physico-chemical removability	not applicable			
• Adsorbed organic bound halogens (AOX)	not applicable			
• Additional ecological information	Inorganic product which cannot be eliminated from water by biological purification processes. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.			

### 13. DISPOSAL CONSIDERATIONS

- **Product** Test for use in agriculture.
- **Packaging** Completely emptied packagings can be given for recycling.
- **Contaminated packaging** Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.
- **Waste key for the unused product** 02 01 09: Wastes of chemicals for the agriculture excepted of those, which are listed under 02 01 08

### 14. TRANSPORT INFORMATION

#### Further Information

Not classified as dangerous in the meaning of transport regulations.

### 15. REGULATORY INFORMATION

#### Labelling according to EC Directives

- no labelling required (no dangerous properties)



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### National legislation

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

### 16. OTHER INFORMATION

#### Further information

The information contained herein is based on the present-day standard of knowledge and does not therefore guarantee certain properties.

Recipients of our product have to take on responsibility for observing existing laws and regulations. See product leaflet.

#### Sources of key data used to compile the Safety Data Sheet:

- **REF. 1**      Gmelins Handbuch der Anorganischen Chemie, System-Nr. 22, Verlag Chemie Berlin, 8. Auflage,
- **REF. 2**      Sbornik Vysledku, Toxixologickeho Vysetreni Latek A Prinpravku, p. 8, 1972
- **REF. 3**      Kommision Bewertung wassergefährlicher Stoffe, Data sheet No. 230, 1992