



# 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  
34131 Kassel  
Germany  
Telephone: +49-(0)561-9301-0  
Telefax: +49-(0)561-9301-1753
- **Responsible Department**  
Marketing  
Telephone: +49-(0)561-9301-2356  
Telefax: +49-(0)561-9301-1744  
marketing@kali-gmbh.com
- **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

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>EINECS-No.</u>	<u>Symbol(s)</u>	<u>R-phrase(s)</u>	<u>Content [%]</u>
• 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.



## Potassium Chloride for Industrial Applications

Version 2.1

Revision Date: 25.11.2008

### 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



## Potassium Chloride for Industrial Applications

Version 2.1

Revision Date: 25.11.2008

- **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.



## Potassium Chloride for Industrial Applications

Version 2.1

Revision Date: 25.11.2008

- **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
• <b>Toxicity to fish</b>	LC50 2.300 mg/l (48 h)	golden orfe	DIN 38412	REF. 3
• <b>Toxicity to daphnia</b>	EC50 825 mg/l (48 h)	Daphnia magna	DIN 38412	REF. 3
• <b>Toxicity to algae</b>	EC50 2.500 mg/l (72 h)	Algae	DIN 38412	REF. 3
• <b>Toxicity to bacteria</b>	EC20 > 9.600 mg/l (0,08 h)	Bacteria	DIN 38412	REF. 3
• <b>Biodegradability</b>	not applicable			
• <b>Physico-chemical removability</b>	not applicable			
• <b>Adsorbed organic bound halogens (AOX)</b>	not applicable			
• <b>Additional ecological information</b>	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)



## Potassium Chloride for Industrial Applications

Version 2.1

Revision Date: 25.11.2008

### 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, Toxixiologickeho Vysetreni Latek A Prinpravku, p. 8, 1972
- **REF. 3**      Kommision Bewertung wassergefährlicher Stoffe, Data sheet No. 230, 1992