

## Material Safety Data Sheet

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Version 1.4  
According to 91/155/EEC

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1 - Product and Company Information

Product Name POTASSIUM CHLORIDE, 99.999%  
Product Number 409316

Company Sigma-Aldrich Pty, Ltd  
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Castle Hill NSW 1765  
Australia

Technical Phone # +61 2 9841 0555  
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## 2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
POTASSIUM CHLORIDE	7447-40-7	231-211-8	None

Formula KCl  
Molecular Weight 74.56 AMU  
Synonyms Potassium chloride \* Chlorid draselny (Czech) \*  
Chloropotassuril \* Dipotassium dichloride \*  
Emplets potassium chloride \* Enseal \* Kalitabs \*  
Kaochlor \* Kaon-Cl \* Kaon-Cl 10 \* Kaon-Cl TABS \*  
Kay ciel \* Klotrix \* K-Lyte/Cl \* K-Lor \*  
K-Predne-dome \* Monopotassium chloride \* Pfiklor  
\* Potassium monochloride \* Potavescent \* Rekawan  
\* Slow K \* Tripotassium trichloride

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## 3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Not hazardous according to Directive 67/548/EC.

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## 4 - First Aid Measures

## AFTER INHALATION

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

## AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious amounts of water.

## AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

## AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

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## 5 - Fire Fighting Measures

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### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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## 6 - Accidental Release Measures

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### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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## 7 - Handling and Storage

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### HANDLING

Directions for Safe Handling: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

### STORAGE

Conditions of Storage: Keep tightly closed.

### SPECIAL REQUIREMENTS: Hygroscopic.

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## 8 - Exposure Controls / Personal Protection

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### ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

### GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Wear dust mask.

Hand Protection: Protective gloves.

Eye Protection: Chemical safety goggles.

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## 9 - Physical and Chemical Properties

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pH	7
BP/BP Range	1,500 °C
MP/MP Range	770 °C
Flash Point	N/A
Flammability	N/A
Autoignition Temp	N/A
Oxidizing Properties	N/A

Explosive Properties	N/A
Explosion Limits	N/A
Vapor Pressure	N/A
SG/Density	1.98 g/cm <sup>3</sup>
Partition Coefficient	N/A
Viscosity	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
Evaporation Rate	N/A
Bulk Density	N/A
Decomposition Temp.	N/A
Solvent Content	N/A
Water Content	N/A
Surface Tension	N/A
Conductivity	N/A
Miscellaneous Data	N/A
Solubility	Solubility in Water: Soluble.

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## 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

Conditions to Avoid: Moisture.

Materials to Avoid: Strong acids, Strong oxidizing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Hydrogen chloride gas, Potassium oxides.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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## 11 - Toxicological Information

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### RTECS NUMBER: TS8050000

### ACUTE TOXICITY

LD<sub>50</sub>

Oral

Infant

938 mg/kg

2D

Remarks: Lungs, Thorax, or Respiration: Cyanosis. Lungs, Thorax, or Respiration: Other changes. Nutritional and Gross

Metabolic: Changes in: K

LD<sub>50</sub>

Oral

Man

20 mg/kg

Remarks: Cardiac: Arrhythmias (including changes in conduction).

Gastrointestinal: Nausea or vomiting. Blood: Change in clotting factors.

LD<sub>50</sub>

Oral

Rat

2600 mg/kg

LD<sub>50</sub>

Intraperitoneal

Rat  
660 MG/KG

LD50  
Intravenous  
Rat  
142 MG/KG  
Remarks: Behavioral:Convulsions or effect on seizure threshold.  
Lungs, Thorax, or Respiration:Dyspnea.

LD50  
Oral  
Mouse  
1500 mg/kg

LD50  
Intraperitoneal  
Mouse  
620 MG/KG

LD50  
Intravenous  
Mouse  
117 MG/KG

#### IRRITATION DATA

Eyes  
Rabbit  
500 mg  
24H  
Remarks: Mild irritation effect

#### SIGNS AND SYMPTOMS OF EXPOSURE

Hyperkalaemia, nausea, vomiting, abdominal pain, diarrhea or constipation, paraesthesia, thirst, dizziness, skin rash, pruritus, weakness, muscle cramps, and minor psychiatric or visual changes. ORL-mus LD50: 56 mg/kg \* ORL-rat LD50: 36 to 85 mg/kg (depending on strain)

#### ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.  
Skin Absorption: May be harmful if absorbed through the skin.  
Eye Contact: May cause eye irritation.  
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.  
Ingestion: May be harmful if swallowed.

#### CHRONIC EXPOSURE - MUTAGEN

Rat  
1500 UG/KG  
Oral  
Unscheduled DNA synthesis

Mouse  
2048 MG/L (+S9)  
Cell Type: lymphocyte  
Mutation in microorganisms

Hamster  
260 MMOL/L

Cell Type: ovary  
DNA damage

Hamster  
12 GM/L  
Cell Type: lung  
Cytogenetic analysis

Hamster  
140 MMOL/L  
Cell Type: ovary  
Cytogenetic analysis

Hamster  
180 MMOL/L  
Cell Type: ovary  
Sister chromatid exchange

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## 12 - Ecological Information

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No data available.

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## 13 - Disposal Considerations

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### SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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## 14 - Transport Information

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### RID/ADR

Non-hazardous for road transport.

### IMDG

Non-hazardous for sea transport.

### IATA

Non-hazardous for air transport.

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## 15 - Regulatory Information

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### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

S-PHRASES: 22 24/25

Do not breathe dust. Avoid contact with skin and eyes.

Not hazardous according to Directive 67/548/EC.

### COUNTRY SPECIFIC INFORMATION

#### Germany

WGK: 1

#### SWITZERLAND

SWISS POISON CLASS: 5

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## 16 - Other Information

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### WARRANTY

The above information is believed to be correct but does not

purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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