



# Potassium Chloride 99.9 % KCl

## Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.  
Issue date: 05/07/2022 Revision date: 21/05/2024 Supersedes: 05/07/2022 Version: 20.2

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form	: Substance
Trade name	: Potassium Chloride 99.9 % KCl
EC-No.	: 231-211-8
CAS-No.	: 7447-40-7
Product code	: K0034
Formula	: KCl
Synonyms	: Ph. Eur., USP
Product group	: Active pharmaceutical ingredient

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

##### 1.2.1. Relevant identified uses

No additional information available

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

##### Manufacturer

K+S Minerals and Agriculture GmbH  
Bertha-von Suttner-Str., 7  
DE- 34131 Kassel  
Deutschland  
T +49 561 9301- 0  
[info@k-plus-s.com](mailto:info@k-plus-s.com) - [www.kpluss.com](http://www.kpluss.com)

#### 1.4. Emergency telephone number

Emergency number	: For Chemical Emergency Call : for incidents involving hazardous materials [or dangerous goods] spill, leak, fire, exposure or accident, call CHEMTREC 24hr/day 7days/week Within USA and Canada: +1 800 424 - 9300 Outside USA and Canada: +1 703 741 - 5970 (collect calls accepted)
------------------	--

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to GB CLP (SI 2019:720 as amended)

Not classified

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

##### Labelling according to GB CLP (SI 2019:720 as amended)

No labelling applicable

#### 2.3. Other hazards

Contains no PBT and/or vPvB substances  $\geq 0.1\%$  assessed in accordance with UK REACH Annex XIII

# Potassium Chloride 99.9 % KCl

## Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

Component	
Potassium chloride (7447-40-7)	This substance/mixture does not meet the PBT criteria of UK REACH regulation, Annex XIII This substance/mixture does not meet the vPvB criteria of UK REACH regulation, Annex XIII
Component	
Potassium chloride(7447-40-7)	The substance is not included in the list established in accordance with Article 59(1) of UK REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in GB BPR and GB PPP

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type	: Mono-constituent
Name	: Potassium Chloride 99.9 % KCl
CAS-No.	: 7447-40-7
EC-No.	: 231-211-8

Name	Product identifier	%	Labelling according to GB CLP (SI 2019:720 as amended)
Potassium chloride	CAS-No.: 7447-40-7 EC-No.: 231-211-8		Not classified

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Unsuitable extinguishing media : Strong water jet.

### 5.2. Special hazards arising from the substance or mixture

No additional information available

### 5.3. Advice for firefighters

Other information : Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

# Potassium Chloride 99.9 % KCl

## Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

No additional information available

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

No additional information available

#### 6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

No additional information available

#### 7.2. Conditions for safe storage, including any incompatibilities

No additional information available

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

No additional information available

##### 8.2.2. Personal protection equipment

###### 8.2.2.1. Eye and face protection

No additional information available

# Potassium Chloride 99.9 % KCl

## Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

### 8.2.2.2. Skin protection

No additional information available

### 8.2.2.3. Respiratory protection

No additional information available

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

No additional information available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: white.
Appearance	: Crystalline solid.
Molecular mass	: 74.55 g/mol
Odour	: none to slight.
Odour threshold	: Not available
Melting point	: 770 °C
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Explosive properties	: The product is not explosive. Is not classified according to Regulation (EU) 2019-1148.
Explosive limits	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: 4 – 7
pH solution concentration	: 5 %
Viscosity, kinematic	: Not applicable
Solubility	: Water: 25.5 % KCl
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1.989 g/cm <sup>3</sup>
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

Potassium chloride (7447-40-7)	
Boiling point	Not applicable (melting point > 300 °C)
Flash point	Not applicable (solid)
Auto-ignition temperature	No data available in the literature
Vapour pressure	Not applicable (solid)
Particle size	81 µm (D50, OECD 110: Particle Size Distribution/Fibre Length and Diameter Distributions)

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

Bulk density : ≈ 1100 kg/m<sup>3</sup>

# Potassium Chloride 99.9 % KCl

## Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

No additional information available

#### 10.3. Possibility of hazardous reactions

No additional information available

#### 10.4. Conditions to avoid

No additional information available

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

No additional information available

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

#### Potassium chloride (7447-40-7)

LD50 oral rat	3020 mg/kg bodyweight (Rat, Female, Experimental value, Oral)
ATE GB CLP (oral)	3020 mg/kg bodyweight

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: 4 – 7

#### Potassium chloride (7447-40-7)

pH	5.5 – 8.5 (5 %, 20 °C)
----	------------------------

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: 4 – 7

#### Potassium chloride (7447-40-7)

pH	5.5 – 8.5 (5 %, 20 °C)
----	------------------------

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)  
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)  
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

#### Potassium chloride (7447-40-7)

NOAEL (chronic, oral, animal/male, 2 years)	≈ 1820 mg/kg bodyweight Animal: rat, Animal sex: male
---	---

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)  
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)  
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

#### Potassium chloride (7447-40-7)

NOAEL (oral, rat, 90 days)	≈ 1820 mg/kg bodyweight Animal: rat, Animal sex: male
----------------------------	---

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

# Potassium Chloride 99.9 % KCl

## Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

### Potassium chloride (7447-40-7)

Viscosity, kinematic	Not applicable (solid)
----------------------	------------------------

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

### Potassium chloride (7447-40-7)

LC50 - Fish [1]	880 mg/l (EPA 600/4-90/027, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	440 – 880 mg/l (EPA 600/4-90/027, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 - Other aquatic organisms [1]	440 – 880 mg/l Test organisms (species): other:
EC50 - Other aquatic organisms [2]	580 – 670 mg/l Test organisms (species): other:
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)

### 12.2. Persistence and degradability

#### Potassium Chloride 99.9 % KCl (7447-40-7)

Persistence and degradability	Not rapidly degradable
-------------------------------	------------------------

#### Potassium chloride (7447-40-7)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

### 12.3. Bioaccumulative potential

#### Potassium chloride (7447-40-7)

Bioaccumulative potential	Not bioaccumulative.
---------------------------	----------------------

### 12.4. Mobility in soil

#### Potassium chloride (7447-40-7)

Ecology - soil	Low potential for adsorption in soil.
----------------	---------------------------------------

# Potassium Chloride 99.9 % KCl

## Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

### 12.5. Results of PBT and vPvB assessment

#### Component

Potassium chloride (7447-40-7)	This substance/mixture does not meet the PBT criteria of UK REACH regulation, Annex XIII This substance/mixture does not meet the vPvB criteria of UK REACH regulation, Annex XIII
--------------------------------	---

### 12.6. Other adverse effects

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Recycle or dispose of in compliance with current legislation.  
European List of Waste (LoW, EC 2000/532) : 06 03 14 - solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not regulated for transport				
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>Transport document description</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

# Potassium Chloride 99.9 % KCl

## Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

### Inland waterway transport

Not regulated

### Rail transport

Not regulated

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

##### REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

##### PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

##### POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

##### Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

##### Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 15.1.2. United Kingdom

##### UK REACH Annex XIV (Authorisation List)

Not listed on UK REACH Annex XIV (Authorisation List): Potassium Chloride 99.9 % KCl

##### UK REACH Candidate List (SVHC)

Not listed on the UK REACH Candidate List

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

### Indication of changes (UK)

Section	Changed item	Change	Comments
	Supersedes version of	Added	
	Revision date	Modified	
	Concentration of the solution used for the pH measurement	Added	



# Potassium Chloride 99.9 % KCl

## Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

Indication of changes (UK)			
Section	Changed item	Change	Comments
9.1 - Information on basic physical and chemical properties	pH	Added	
9.1 - Information on basic physical and chemical properties	pH solution	Added	
	Supersedes	Added	
	Revision date	Added	
	Concentration of the solution used for the pH measurement	Added	
9.1 - Information on basic physical and chemical properties	pH	Added	
9.1 - Information on basic physical and chemical properties	pH solution	Modified	

Safety Data Sheet (SDS), UK

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.