

Safety Data Sheet

According 1907/2006 EC



POTASSIUM CHLORIDE

1 Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or the preparation

Chemical name : Potassium chloride
Trade name : MOP, Potassium chloride
Chemical formula : KCl
Nature of the product : Pure substance
EC number : 231-211-8
Reach registration number : The substance is considered a naturally occurring and not chemically modified product and must not be registered according to REACH Art.2(7)(b).
CAS number : 7447-40-7

1.2 Use of the substance

Use : Industrial use of the product as such or in preparation at industrial sites (SU3)
: Formulation [mixing] of preparations and/or re-packaging (excluding alloys) (SU 10)
: Professional end-use (PC 12)
: Consumer end-use (PC 12)

Uses advised against : None

1.3 Company/undertaking identification

Distributor

CSS

Zuut 12

2500 Lier

Tel. : +32(0) 3 488 02 33

Fax : +32(0) 3 488 44 13

E-mail : anorel@anorel.net

1.4 Emergency telephone

Belgium	Centre Anti-Poisons/Antigifcentrum	(+32) 70 245 245
France	Centre Antipoisons - Centre de Pharmacovigilance	(+33) 4 72 11 69 11
Germany	Giftinformationszentrale Göttingen	(+49) 551 19240
Ireland	National Poisons Information Centre	(+353) 1 8379964
Italy	Centro antiveleni	(+39) 02 66 10 10 29
Netherlands	National Poisons Information Centre	(+31) 30 274 88 88
Norway	National Poison Information Centre	(+47) 22 59 13 00
Spain	Servicio de Información Toxicológica	(+34) 91 562 04 20
Portugal	Centro de Informação Antivenenos	(+351) 21 330 3284
United	Kingdom UK National Poisons Emergency	(+44) 870 600 6266

2 Hazards identification

2.1 Classification of the substance or preparation

2.1.1 Classification (EC) N°1272/2008(CLP/GHS):

Not classified as hazardous.

2.1.2 Classification 67/548/EEC (DPD):

Not classified as dangerous.

2.2 Labelling

Labelling Regulation EC 1272/2008 (CLP): None applicable

2.3 Other hazards

PBT and vPvB assessment is not applicable to inorganic substances.

3 Composition/information on ingredients

SUBSTANCE DOES NOT APPEAR IN THE LIST OF HAZARDOUS SUBSTANCES (ANNEX VI OF THE EUROPEAN DIRECTIVE 1272/2008)

Name Component	Content	CAS-nr.	EG-nr.	Annex-nr	Classification
Potassium chloride	: >= 95 %	7447-40-7	231-211-8	-----	-----

4 First aid measures

COMMONLY

In case of persisting adverse effects consult a physician.

Never give anything by mouth to an unconscious person or a person with cramps.

4.1 Description of the first aid measures

- **Inhalation**
If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- **Skin contact**
Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention
- **Eye contact**
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- **Ingestion**
Rinse mouth and drink plenty of water. Induce vomiting when the affected person is not unconscious. Get medical advice/attention if you feel unwell.



4.2 Acute and delayed symptoms and effects

The following symptoms may occur:

In case of inhalation	May cause irritation to respiratory tract
In case of skin contact	May cause redness or irritation
In case of eye contact	May cause redness or irritation
In case of ingestion	Ingestion of large amounts may cause: Gastrointestinal disturbances

4.3 Special means to provide specific and immediate treatment

Treat symptomatically.

5 Fire-fighting measures

5.1 Extinguishing media

- Suitable extinguishing media
Use any suitable mean for extinguishing surrounding fire.
- Extinguishing media which shall not be used for safety reasons
None, but attention should be paid to compatibility with chemicals surrounding.

5.2 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

Thermal decomposition can lead to the escape of toxic/irritating gases and vapours.
Decomposition products: refer to section 10.

5.3 Special protective equipment for fire-fighters

Wear a self-contained breathing apparatus and chemical protective clothing.

6 Accidental release measures

6.1 Personal precautions

Provide adequate ventilation. Wear personal protection equipment.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

6.3 Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal or recovery.
Unsuitable material for taking up: None specified

6.4 Note

Personal protective equipment (Section 8)



7 Handling and storage

7.1 Handling

Avoid generation of dust. Provide adequate ventilation. Wear personal protective equipment. Keep away from food, drink and animal feeding stuff. Good hygiene practices and housekeeping measures. Wash hands before breaks and at the end of workday.

7.2 Storage

Reseal carefully any opened container and set upright to avoid leakages. Keep the product tightly closed in a dry, in well-ventilated and cool place.

7.3 Specific use(s)

None specified.

8 Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

No specific occupational exposure limit. Follow generic occupational limits for particulates.

	Dust, inhalable		Dust, respirable	
	Long term occupational exposure	Short term occupational	Long term occupational	Short term occupational
	mg/m ³	mg/m ³	mg/m ³	mg/m ³
Austria	10	20	5	10
Belgium	10		3	
Denmark	10	20		
France	10		5 (respirable aerosol)	
Germany	10 (AGS)	20 (AGS)	3 (AGS)	6 (AGS)
Germany	4 (DFG)		1,5 (DFG)	
Hungary	10		6	
Spain	10		3	
Sweden	10		5	
Switzerland	10		3	
USA (OSHA)	15		5	

8.2 Exposure controls

8.2.1 Occupational exposure controls

Eye / face protection

Chemical goggles

Hand protection

Wear suitable gloves.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

General health and safety measures

Do not eat, drink or smoke when using this product.

Wash hands before breaks and at the end of workday

9 Physical and chemical properties

9.1 General information

- Appearance

Solid

- Colour

White crystals or granules.

- Odour Odourless

9.2 Important health, safety and environmental information

- | | | |
|---|--------------------------|-------------------------------|
| - Odour Threshold | Not applicable | |
| - pH value | 6.0 - 9.0 (5% solution) | |
| - Melting point / melting range | 771-773 °C at 1013 hPa | (Literature information) |
| - Boiling temperature / boiling range | Not applicable | |
| - Flash point | Not applicable | |
| - Vapourisation rate / Evaporation rate | Not applicable | |
| - Flammable solids | Non flammable | (Based on chemical structure) |
| - Explosion limits (LEL, UEL) | Not applicable | |
| - Vapour pressure | Negligible | (Based on chemical nature) |
| - Relative vapour density (air = 1) | No data available | |
| - Density | 1.98 g/mL | (Literature information) |
| - Solubility (applicable to crystalline form) | 347 g/L at 20 °C (water) | (Literature information) |
| - Partition coefficient n-octanol /water | Not applicable | (Based on chemical nature) |
| - Auto Ignition temperature (AIT) | Not applicable | |
| - Decomposition temperature (°C) | 1420-1500 °C at 1013 hPa | (Literature information) |
| - Viscosity | Not applicable | |
| - Explosive properties | Not explosive | (Based on chemical structure) |
| - Oxidising properties | Not oxidising | (Based on chemical structure) |

9.3 Other information

None

10 Stability and reactivity

10.1 Reactivity

Stable under normal storage and temperature conditions.

10.2 Stability

Stable under normal storage and temperature conditions.

10.3 Conditions to avoid

Contact with concentrated solutions of strong acids may produce gaseous hydrogen chloride

10.4 Materials to avoid

None identified.

10.5 Hazardous decomposition products

Thermal decomposition products: potassium oxides

11 Toxicological information

Potassium and chloride are essential constituent of the body for intracellular osmotic pressure and buffering, cell permeability, acid-base balance, muscle contraction and nerve function. About 90 % of

the ingested dose of potassium is absorbed by passive diffusion in the membrane of the upper intestine. Potassium is distributed to all tissues where it is the principal intracellular cation. The majority of ingested potassium is excreted in the urine via glomerular filtration. Potassium can be also secreted and reabsorbed in distal tubules. Excretion and retention of potassium is mainly regulated by endocrine mechanisms.

Acute toxicity

Acute oral toxicity	LD50: 2600 mg/kg bw	Species: Rat.	Method: Not described
Assessment / classification	Based on available data, the classification criteria is not met		

Irritant and corrosive effects

Primary irritation to the skin/eyes

No data available

Assessment / classification Not classified (data lacking)

Respiratory or skin sensitisation Result

Skin sensitization No information available.

Respiratory sensitisation No information available.

Assessment / classification Not classified (data lacking)

Germ cell mutagenicity / Genotoxicity

<i>In-vitro mutagenicity</i>	Method	Result
Gene-mutations microorganisms	Salmonella mutagenicity test	negative
Gene-mutations mammalian cells	TK+/-L5178Y mouse lymphoma cells	negative
Chromosome aberrat. mammalian cells		Equivocal

Effects are attributed to a high osmotic pressure
Based on available data, the classification criteria is not met

Assessment / classification

Carcinogenicity

In a chronic toxicity test with KCl and NaCl in F344/Slc rats, no carcinogenic effects were found.

Assessment / classification Based on available data, the classification criteria is not met

Reproductive toxicity

Adverse effects on reproduction

No fertility study has been located. Based on the extensive amount of knowledge on KCl intake, regulation and effects in the human body, no effects on reproduction are considered.

Adverse effects on developmental toxicity

No effects observed at the highest dose level 235 mg/kg/day (mice) and 310 mg/kg/day (rats)

Assessment / classification Based on available data, the classification criteria is not met

Specific target organ toxicity (single exposure)

Practical experience / human evidence

Gastro-intestinal irritant effects in humans have been reported after ingestion of large doses.

Assessment / classification Based on available data, the classification criteria is not met

Specific target organ toxicity (repeated exposure)

No adverse effects observed up to 1820 mg/Kg bw/day, and 80 mmol KCl/day (approx. 85 mg/kg bw/day) in humans

Assessment / classification Based on available data, the classification criteria is not met

Aspiration hazard

Physicochemical and toxicological data does not indicate a potential aspiration hazard.

Assessment / classification Based on available data, the classification criteria is not met

12 Ecological information

12.1 Ecotoxicity

Aquatic toxicity

96-h LC50	2,010 mg/L	Lepomis macrochirus (Bluegill)	(literature information)
48-h EC50	337 - 825 mg/L	Daphnia magna (Big water flea).	(literature information)
3-4 months NOEL	600 mg/L	Chlorella vulgaris.	(literature information)
Assessment / classification			Based on available data, the classification criteria are not met

12.2 Mobility

Potassium not taken up by plants may become ion exchanged with clays or organic matter near the surface and thus may not be very mobile. Chloride binds only weakly to soil particles, and therefore follows water movement.

12.3 Persistence and degradability

Potassium chloride completely dissociates into respective ions. Ions do not undergo further degradation but are ubiquitously found in all environmental compartments and naturally form part of several human and animal structures.

12.4 Bioaccumulative potential

Potassium chloride has a low potential for bioaccumulation based on physicochemical properties.

12.5 Results of PBT assessment

PBT and vPvB assessment is not applicable to inorganic substances

12.6 Other adverse effects

None described

13 Disposal considerations

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Delivery to an approved waste disposal company. Dispose according to legislation.

14 Transport information

Land transport (ADR/RID)/Inland waterway transport (ADN)/Sea transport (IMDG)/Air transport (ICAO-TI / IATA-DGR)

Non dangerous good in sense of these transport regulations.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Remark

NoneClass

15 Regulatory information

Health, safety and environmental information shown on the label according to Directives 67/548/EEC and 1999/45/EC

None identified

Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

16 Other information

- List of relevant R phrases. Not applicable
- Sources of key data used to compile the Safety Data Sheet:
The Fertilizer Institute Testing Program, April 2003.
National Toxicology Program
OECD SIDS Initial Assessment Report for 13th SIAM
This information is based upon the present state of our knowledge
This SDS has been compiled and is solely intended for this product
- The content and format of this SDS are in accordance with Regulation (EC) No 1907/2006 of the European Parliament and Council.
- *DISCLAIMER. To the best of our knowledge, the information provided in this Safety Data Sheet is accurate as at the date of its issue. The information it contains is being given for safety guidance purposes and relates only to the specific material and uses described in it. This information does not necessarily apply to that material when combined with other material(s) or when used otherwise than as described herein. Final determination of the suitability of any material is the sole responsibility of the user. All materials may represent unknown hazards and should be used with caution. Anorel NV disclaims any liability for loss or damage resulting from the use of any data, information or recommendations set out in this Safety Data Sheet.*