

according to Regulation (EC) No 1907/2006

## Potassium chloride

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

#### 1.1. Product identifier

Potassium chloride

Substance name: potassium chloride

CAS No: 7447-40-7 EC No: 231-211-8

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

#### Use of the substance/mixture

Reagents and laboratory chemicals
Only for laboratory and analysis purposes.

#### Uses advised against

Do not use for private purposes (household).

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

## Details of the supplier of the safety data sheet

Company name: AnalytiChem Services, Unipessoal, Lda

Rua de Júlio Dinis 676 7º Street: P-4050-320 Porto Place: +351 226002917 Telephone: info@analytichem.com E-mail: SDS service department Contact person: E-mail: SDS@analytichem.com www.analytichem.com Internet: SDS service department Responsible Department:

Supplier or manufacturer details

Company name: AnalytiChem GmbH Street: Stempelstraße 6 Place: D-47167 Duisburg Telephone: 0203/5194-0

E-mail: info@analytichem.de
Contact person: SDS service department
E-mail: SDS@analytichem.com
Internet: www.analytichem.de

Responsible Department: AnalytiChem:

EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem,

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Belgium, +32 50 28 83 20

EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg,

Germany, +49 203 51 94 - 200

EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG

Mijdrecht, The Netherlands, +31 297 286848

UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester,

OX26 4XB, England, +44 1869 355 500

USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States,

+1 800-244-8378

Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X

4B6, Canada, +1 514-457-0701

Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater

North, 3153, Australia, +61 3 9729 0333

**1.4. Emergency telephone** +353 1 901 4670 (CHEMTREC)

number:



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#### **Further Information**

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

## **SECTION 2: Hazards identification**

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

#### Regulation (EC) No 1272/2008

This substance is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

#### 2.2. Label elements

#### 2.3. Other hazards

No data available

## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

Sum formula: KCI

Molecular weight: 74,55 g/mol

#### Relevant ingredients

CAS No	Chemical name				
	EC No Index No REACH No				
	Classification (Regulation (EC) No 1272/2008)				
7447-40-7	potassium chloride				
	231-211-8				

Full text of H and EUH statements: see section 16.

## Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity		
	Specific Conc. L	Specific Conc. Limits, M-factors and ATE			
7447-40-7	231-211-8	31-211-8 potassium chloride			
	oral: LD50 = ca. 2600 mg/kg				

#### **Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

#### **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

## **General information**

No data available

#### After inhalation

Provide fresh air.

#### After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.



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#### After ingestion

Rinse mouth immediately and drink plenty of water.

Call a doctor if you feel unwell.

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

Irritant

Vomiting

Gastrointestinal complaints

Cardiac arrhythmias

Circulatory collapse

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

No data available

## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

#### Unsuitable extinguishing media

no restriction

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

Non-combustible solids

Hazardous combustion products

In case of fire may be liberated:

Hydrogen chloride (HCI)

## 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Avoid contact with skin, eyes and clothes.

## Additional information

Use water spray jet to protect personnel and to cool endangered containers.

Do not allow run-off from fire-fighting to enter drains or water courses.

#### **SECTION 6: Accidental release measures**

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

#### General advice

No data available

#### For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

**Emergency procedures** 

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

#### For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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



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#### For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Take up carefully when dry. Take up dust-free and set down dust-free.

#### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

#### Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

## 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

#### Advice on safe handling

Handle and open container with care.

Keep container tightly closed.

Do not breathe dust. Avoid dust formation.

Avoid contact with skin, eyes and clothes.

## Advice on protection against fire and explosion

Usual measures for fire prevention.

#### Advice on general occupational hygiene

Wash contaminated clothing prior to re-use.

Do not breathe dust. Avoid dust formation.

Avoid contact with skin, eyes and clothes.

#### Further information on handling

Wash contaminated clothing before reuse.

Wash hands before breaks and after work.

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

## Requirements for storage rooms and vessels

Keep container tightly closed.

#### Hints on joint storage

No data available

## Further information on storage conditions

Store in a dry place.

storage temperature +5°C - +30°C

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

Laboratory chemicals

#### **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters



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#### **DNEL/DMEL values**

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CAS No	Substance						
DNEL type		Exposure route	Effect	Value			
7447-40-7	potassium chloride						
Worker DNEL,	long-term	inhalation	systemic	1064 mg/m³			
Worker DNEL,	acute	inhalation	systemic	5320 mg/m³			
Worker DNEL, long-term		dermal	systemic	303 mg/kg bw/day			
Worker DNEL, acute		dermal	systemic	910 mg/kg bw/day			
Consumer DNEL, long-term		inhalation	systemic	273 mg/m³			
Consumer DNEL, acute		inhalation	systemic	1365 mg/m³			
Consumer DNEL, long-term		dermal	systemic	182 mg/kg bw/day			
Consumer DNEL, acute		dermal	systemic	910 mg/kg bw/day			
Consumer DNEL, long-term		oral	systemic	91 mg/kg bw/day			
Consumer DNEL, acute		oral	systemic	455 mg/kg bw/day			

#### **PNEC values**

CAS No	Substance				
Environmental	Value				
7447-40-7	potassium chloride				
Freshwater 0,					
Freshwater (int	1 mg/l				
Marine water	0,1 mg/l				
Micro-organism	10 mg/l				

#### 8.2. Exposure controls

#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

#### Individual protection measures, such as personal protective equipment

## Eye/face protection

goggles

## **Hand protection**

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Recommended glove articles: KCL 741 Dermatril® L Recommended material: NBR (Nitrile rubber) 0,11mm Wearing time with permanent contact: >480min

By short-term hand contact

Recommended glove articles: KCL 741 Dermatril® L Recommended material: NBR (Nitrile rubber) 0,11mm Wearing time with occasional contact (splashes): >480min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and



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under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

#### Skin protection

Wear suitable protective clothing.

Wash hands before breaks and after work.

#### Respiratory protection

Respiratory protection necessary at: dust formation

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

#### Thermal hazards

No data available

#### **Environmental exposure controls**

Do not allow to enter into surface water or drains.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state: solid
Colour: white
Odour: odourless

Odour threshold: No data available

Melting point/freezing point:

773 °C

Boiling point or initial boiling point and

1413 °C

boiling range:

No data available Flammability: No data available Lower explosion limits: No data available Upper explosion limits: Flash point: No data available No data available Auto-ignition temperature: No data available Decomposition temperature: pH-Value (at 25 °C): 5,5 - 8,0 (50 g/l) No data available Viscosity / kinematic: Water solubility: 347 g/l

(at 20 °C)

Solubility in other solvents

No data available

Dissolution rate: No data available No data available Partition coefficient n-octanol/water: No data available Dispersion stability: No data available Vapour pressure: No data available Vapour pressure: 1,98 g/cm<sup>3</sup> Density (at 20 °C): No data available Relative density: ~1000 kg/m³ Bulk density: No data available Relative vapour density: No data available Particle characteristics:

## 9.2. Other information

#### Information with regard to physical hazard classes

Explosive properties

No data available

Sustained combustibility:

No data available



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Self-ignition temperature

Solid: No data available
Gas: No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:

Solvent separation test:

No data available

Solvent content:

O%

Solid content:

100%

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:

Flow time:

No data available

No data available

Further Information
No data available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No data available

## 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

## 10.3. Possibility of hazardous reactions

Oxidising agent, strong

#### 10.4. Conditions to avoid

No data available

## 10.5. Incompatible materials

No data available

#### 10.6. Hazardous decomposition products

In case of fire may be liberated: SECTION 5: Firefighting measures

#### **Further information**

No data available

## **SECTION 11: Toxicological information**

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Toxicocinetics, metabolism and distribution

No data available

## **Acute toxicity**

Based on available data, the classification criteria are not met.

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CAS No	Chemical name						
	Exposure route Dose Species Source Method						
7447-40-7	potassium chloride						
	oral		1	J Pharmacol Exp Therap 35, 1-15, 1929 (1			

#### Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

In case of eye contact: mild irritation.

## Sensitising effects

Based on available data, the classification criteria are not met.

#### Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

#### **Aspiration hazard**

Based on available data, the classification criteria are not met.

#### Information on likely routes of exposure

No data available

## Specific effects in experiment on an animal

No data available

#### **Practical experience**

No data available

## 11.2. Information on other hazards

#### **Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

#### Other information

No data available

#### **Further information**

Irritant

Vomiting

Gastrointestinal complaints

Cardiac arrhythmias

Circulatory collapse

## **SECTION 12: Ecological information**

## 12.1. Toxicity

Based on available data, the classification criteria are not met.



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CAS No	Chemical name						
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method
7447-40-7	potassium chloride						
	Acute fish toxicity LC50 880 mg		880 mg/l		Pimephales promelas	Environmental Toxicology and Chemistry,	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	> 100		Desmodesmus subspicatus	Study report (2010)	OECD Guideline 201
	Acute bacteria toxicity	EC50 mg/l ( )	> 1000		activated sludge, domestic	Study report (2010)	OECD Guideline 209

#### 12.2. Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

#### 12.3. Bioaccumulative potential

No data available

#### 12.4. Mobility in soil

No data available

#### 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

#### 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

#### 12.7. Other adverse effects

Discharge into the environment must be avoided.

## Further information

Do not allow to enter into surface water or drains.

## **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

## **Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Do not empty into drains.

#### Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Packing which cannot be properly cleaned must be disposed of.

#### **SECTION 14: Transport information**

## Land transport (ADR/RID)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

#### Inland waterways transport (ADN)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)



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Not subject to 2012/18/EU (SEVESO III)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

#### 14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

## **SECTION 15: Regulatory information**

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

#### **EU** regulatory information

Information according to Directive

2012/18/EU (SEVESO III):

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

Additional information

No data available

#### **SECTION 16: Other information**

#### Changes

This data sheet contains changes from the previous version in section(s): 1,6.

#### **Further Information**

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.