

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008



Potassium chloride

Revision Date 13.06.2018

Version 1.0

EU / EN

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

1.1 Product identifier

Trade name : Potassium chloride.
Chemical name : Potassium chloride.
CAS-No : 7447-40-7
EC-No : 231-211-8
Registration number : Not applicable. Product is not registered according with the Regulation (EC) No 1907/2006 Article 2(7) (b).

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

Use of the Substance/ : Fertilizer.
Mixture : Raw material for industrial applications.

1.3 Details of the supplier of the safety data sheet

Company : EuroChem-Usolskiy Potash, Limited Liability Company
Russia, 618460, Perm Territory, Usolsky area, Usolye,
Svobody Street, 138 A
Telephone : +7 (3424) 25-62-10
E-mail address : info_usl@eurochem.ru
Only representative : Not applicable.
Telephone : Not applicable.
E-mail address : Not applicable.

1.4 Emergency telephone number

Austria: Poison Control Centre, Tel.: (+43)-1-406-43-43;
Belgium: Belgisch Antigifcentrum, Tel.: 070-245-245;
Croatia: Poison Control Centre, Tel: (+385)-1-23-48-342;
Czech Republic: Toxikologické informační středisko Tel.: (+420)-224-919-293,
(+420)-224-915-402;
Denmark: Poison Control Hotline, Tel.: (+45)-82-12-12-12;
Estonia: National emergency telephone number: 112 or Poison information telephone number:
16662, calling from abroad: (+372) 7943-794;
Finland: Poison Information Centre, Tel.: (09)-471-977 (direct) or (09)-4711;
France: ORFILA (INRS), Tel.: (+33)-(0)-1-45-42-59-59;
Hungary: Az Egészségügyi Toxikológiai Tájékoztató Szolgálat elérhetőségei,
Tel: (+36)-80-201-199;
Iceland : Landspítali - The National University Hospital of Iceland, Tel.: (+354) 543-1000 or 112;
Latvia: Valsts Toksikoloģijas centra Saindēšanās un zāļu informācijas centrs,
Tel.: (+371)-67042473;
Lithuania: Sveikatos apsaugos ministerijos ekstremalių sveikatai situacijų centras,
Tel.: (+370)-5-236-20-52;
Luxembourg: Belgian Poison Center, Tel.: (+352) 8002-5500;
Malta: Mater Dei Hospital, Tel: 2545-0000;
Kingdom of Norway: 113;
Sweden: Swedish Poisons Information Centre, Tel.: (+46) 10-456-6700 or 112.

Note: please, consult with your local/national competent authorities for the emergency number in your country.

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008



Potassium chloride

Revision Date 13.06.2018

Version 1.0

EU / EN

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to REGULATION (EC) No 1272/2008

The product does not need to be classified in accordance with REGULATION (EC) No 1272/2008. Not a hazardous substance or mixture according to REGULATION (EC) No 1272/2008.

2.2 Label elements

Labeling according to REGULATION (EC) No 1272/2008

The product does not need to be labelled in accordance with REGULATION (EC) No 1272/2008. Not a hazardous substance or mixture according to REGULATION (EC) No 1272/2008.

2.3 Other hazards

No data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

The product is a chemical substance within the meaning of the REACH Regulation (1907/2006/EC). The following table contains the main constituent at the top.

| Chemical Name | Concentration, wt. % | CAS-No | EC-No / Registration number | Index-No | CLP |
|--------------------|----------------------|-----------|---------------------------------|---------------|----------------|
| Potassium chloride | 95 – 98 | 7447-40-7 | 231-211-8/ No data available | Not available | Not classified |
| Sodium chloride | 2 – 5 | 7647-14-5 | 231-598-3/ No data available | Not available | Not classified |

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). First aider needs to protect himself. Move out of dangerous area. Take off contaminated clothing and shoes immediately. Never give anything by mouth to an unconscious person.
- Inhalation : If breathed in, move person into fresh air. Keep patient warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
- Skin contact : In case of contact, immediately flush skin with soap and plenty of water. If symptoms persist, call a physician.
- Eye contact : Protect unharmed eye. If easy to do, remove contact lens, if worn. Rinse thoroughly with plenty of water. If symptoms persist, call a physician.
- Ingestion : Rinse mouth with water. Consult a physician, if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: FIRE-FIGHTING MEASURES

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008



Potassium chloride

Revision Date 13.06.2018

Version 1.0

EU / EN

5.1 Extinguishing Media

Suitable extinguishing media : Use all fire extinguishing media.

5.2 Special hazards arising from the substance or mixture

Specific hazards : Absent.

5.3 Advice fire fighters

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Further information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. The product itself does not burn.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedure

Refer to protective measures listed in sections 7 and 8. Use personal protective equipment. Remove all sources of ignition. Avoid contact with skin and eyes. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas. Avoid dust formation.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Avoid release to the environment. Refer to special instructions.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See Section 7, 8, 11, 12 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8. Avoid contact with skin and eyes. Avoid formation of dust. Provide appropriate exhaust ventilation at places where dust is formed Do not carry cloths that have come into contact with the product in your clothing. Handle with care.

Advice on protection against fire and explosion : Normal measures for preventive fire protection. Keep away from heat and sources of ignition.

7.2 Conditions for safe storage including any incompatibilities

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008



Potassium chloride

Revision Date 13.06.2018

Version 1.0

EU / EN

Requirements for storage : Store in a place accessible by authorized persons only. Keep areas and containers locked up or in an area accessible only to qualified or authorized persons. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Store in big bag polyethylene or polypropylene bags (container).

Further information on storage conditions : Protect from moisture.

Advice on common storage : Keep away from food, drink and animal feeding stuffs. Incompatible with acids and bases. Do not store near organic matter.

Storage period : 6 months.

Storage temperature : No data available.

7.3 Specific end use(s)

No data available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

| Components | CAS-No | Control parameters | Basis | Country |
|--------------------|-----------|--------------------------|----------------------------------|-----------|
| Potassium chloride | 7447-40-7 | TWA: 6 mg/m ³ | НАРЕДБА № 13 | Bulgaria |
| Potassium chloride | 7447-40-7 | TWA: 5 mg/m ³ | MK 01.02.2011. Nr.92 | Latvia |
| Potassium chloride | 7447-40-7 | TWA: 5 mg/m ³ | 2011 m. 1 d. Nr. V-824/A1-389 | Lithuania |
| Sodium chloride | 7647-14-5 | TWA: 5 mg/m ³ | MK 01.02.2011. Nr.92 | Latvia |
| Sodium chloride | 7647-14-5 | TWA: 5 mg/m ³ | 2011 m. 1 d. Nr. V-824/A1-389 | Lithuania |

PNEC (Predicted No Effect Concentration)

PNEC aqua – freshwater:

Potassium chloride : 0.1 mg/l

Sodium chloride : 5 mg/l

PNEC aqua – marine water:

Potassium chloride : 0.1 mg/l

PNEC aqua – intermittent releases:

No data available.

PNEC sediment – freshwater:

No data available.

PNEC soil:

Sodium chloride : 4.86 mg/kg soil dw

PNEC STP:

Potassium chloride : 10 mg/l

Sodium chloride : 500 mg/l

DNEL (Derived No Effect Level)/DMEL (Derived Minimal Effect Level)

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008



Potassium chloride

Revision Date 13.06.2018

Version 1.0

EU / EN

Worker

Long-term exposure systemic effects, dermal

Potassium chloride : 303 mg/kg bw/day
Sodium chloride : 295.52 mg/kg bw/day

Long-term exposure systemic effects, inhalation

Potassium chloride : 1 064 mg/m³
Sodium chloride : 2 068.62 mg/m³

Acute exposure systemic effects, inhalation

Potassium chloride : 5 320 mg/m³
Sodium chloride : 2 068.62 mg/m³

Acute exposure systemic effects, dermal

Potassium chloride : 910 mg/kg bw/day
Sodium chloride : 295.52 mg/kg bw/day

General population

Long-term exposure systemic effects, dermal

Potassium chloride : 182 mg/kg bw/day
Sodium chloride : 126.65 mg/kg bw/day

Long-term exposure systemic effects, inhalation

Potassium chloride : 273 mg/m³
Sodium chloride : 443.28 mg/m³

Long-term exposure systemic effects, oral

Potassium chloride : 91 mg/kg bw/day
Sodium chloride : 126.95 mg/kg bw/day

Acute exposure systemic effects, inhalation

Potassium chloride : 1 365 mg/m³
Sodium chloride : 443.28 mg/m³

Acute exposure systemic effects, dermal

Potassium chloride : 910 mg/kg bw/day
Sodium chloride : 126.95 mg/kg bw/day

Acute exposure systemic effects, oral

Potassium chloride : 455 mg/kg bw/day
Sodium chloride : 126.95 mg/kg bw/day

8.2 Exposure controls

Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms. Highly effective exhaust ventilation.

Personal protective equipment

Respiratory protection : Dust mask, half-face filter mask (workers).
Canister filter respirator, airline respirator (in the event of emergency situation).

Remarks : Use respirators and components tested and approved under appropriate government standards CEN (EU).

Hand protection : Protective gloves.

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008



Potassium chloride

Revision Date 13.06.2018

Version 1.0

EU / EN

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

Eye protection : Tightly fitting safety goggles.

Remarks : Use equipment for eye protection tested and approved under appropriate government standards such as EN 166 (EU).

Skin and body protection : Protective clothing made of cotton. Protective shoes or rubber boots.

Remarks : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
General industrial hygiene practice.
Avoid formation of dust.
Avoid contact with skin, eyes and clothing.
When using do not eat, drink or smoke.
Wash hands before breaks and at the end of workday.
Follow the skin protection plan.
Wash contaminated clothing before re-use.

Environmental exposure controls

No data available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form : Crystals, grains, granules.
Colour : Crystals: grayish white.
Grains: different hue of brown-red.
Granules: grayish white, different tints of brown-red.
Odour : Absent.
Odor threshold : No data available.
Flash point : No data available.
Lower explosion limit : No data available.
Upper explosion limit : No data available.
Explosive properties : Non explosive.
Flammability : Not flammable.
Oxidizing properties : Non-oxidizing.
Self-ignition temperature : No data available.
Melting point/range : 768 – 772 °C
Boiling point/boiling range : No data available.
Vapor pressure : No data available
Density : 1.99 kg/l

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008



Potassium chloride

Revision Date 13.06.2018

Version 1.0

EU / EN

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| Bulk density | : No data available. |
| Water solubility | : 330 – 347 g/l at 20 °C : 560 – 567 g/l at 100 °C |
| Solubility in other solvents | : Insoluble in organic solvents, tallows. Low-solubility in anhydrous ammonia, ethanol. |
| Miscibility with water (15 °C) | : Not applicable. |
| Partition coefficient: n-octanol/water | : Not applicable. |
| pH | : 5.5 – 8.8 (50 g/l of water). |
| Viscosity, dynamic | : Not applicable. |
| Viscosity, kinematic | : Not applicable. |
| Relative vapor density | : No data available. |
| Evaporation rate | : No data available. |
| Decomposition temperature | : No data available. |

9.2 Other information

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Non-reactive if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Protect from moisture.

10.5 Incompatible materials

Materials to avoid : Acids and bases, organic matter.

10.6 Hazardous decomposition products

Hazardous decomposition products : Absent.

Thermal decomposition : No data available.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Potassium chloride : LD₅₀ (rat): 3 020 mg/kg

Sodium chloride : LD₅₀ (rat): 3 000 mg/kg

Acute inhalation toxicity

No data available.

Acute dermal toxicity

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008



Potassium chloride

Revision Date 13.06.2018

Version 1.0

EU / EN

No data available.

Acute toxicity (other routes of administration)

No data available.

Skin corrosion / irritation

Skin irritation : Causes mild skin irritation (Based on available data the classification criteria are not met).

Serious eye damage / eye irritation

Eye irritation : Causes eye irritation (Based on available data the classification criteria are not met).

Sensitization of the respiratory / skin

Skin sensitization : May cause an allergic skin reaction (Based on available data the classification criteria are not met).

Respiratory sensitization : Non respiratory sensitizing.

Mutagenicity

No mutagenic effect.

Carcinogenicity

No carcinogenic effect.

Reproductive toxicity

No reproductive effect.

Potassium chloride : NOAEL (rat): 310 mg/kg bw/day
Route of application: oral
Exposure time: 10 days

Teratogenicity

No data available.

Specific target organ toxicity after single exposure

May cause respiratory irritation (Based on available data the classification criteria are not met).

Specific target organ toxicity after repeated exposure (sub-acute / sub-chronic)

Repeated dose toxicity: (sub-acute/ sub-chronic)

Potassium chloride : NOAEL (sub-chronic; rat): 1 800 mg/kg bw/day
Route of application: oral
Exposure time: 2 years

Aspiration hazard

Not applicable.

Neurological effects

No data available.

Toxicology, metabolism, distribution

No data available.

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008



Potassium chloride

Revision Date 13.06.2018

Version 1.0

EU / EN

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish:

Potassium chloride : LC₅₀ (Pimephales promelas): 880 mg/l
Exposure time: 96 h

Sodium chloride : LC₅₀ (Lepomis macrochirus): 5 840 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

Potassium chloride : EC₅₀ (Daphnia magna): 440 - 880 mg/l
Exposure time: 48 h

Sodium chloride : EC₅₀ (Daphnia magna): 874 mg/l
Exposure time: 48 h

Toxicity to aquatic plants:

Potassium chloride : IC₅₀ (Desmodemus subspicatus): > 100 mg/l
Exposure time: 72 h

Long-term study fish/daphnia and other aquatic invertebrates/aquatic plants:

Sodium chloride : NOEC (Pimephales promelas): 250 mg/l
Exposure time: 33 days

Sodium chloride : NOEC (Daphnia pulex): 314 mg/l
Exposure time: 21 days

12.2 Persistence and degradability

Biodegradability : No data available.

12.3 Bioaccumulation potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT assessment and vPvB

Not PBT and no vPvB.

12.6 Other adverse effects

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Advice on disposal and packaging : Disposal:
In accordance with local and national regulations. Do not dispose of waste into sewer. This material and its container must be disposed of in a safe way. Do not dispose of together with household waste. Waste codes should be assigned by the user based on the application for which the product was used.

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, Regulation (EU) No 2015/830, Regulation (EC) No 1272/2008



Potassium chloride

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EU / EN

SECTION 14: TRANSPORT INFORMATION

ADR : Not dangerous goods.
RID : Not dangerous goods.
IATA : Not dangerous goods.
IMDG : Not dangerous goods.

Special precautions for the user

See Section 6, 7 and 8.

SECTION 15: REGULATORY INFORMATION

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

Special labelling of certain mixtures : Restricted to professional users.

Seveso Directive : Directive 2012/18/EU does not apply.
(2012/18/EU)

15.2 CSA

The Chemical Safety Assessment was not undertaken.

SECTION 16: OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.