Safety data sheet

ChemiPURE Potassium Chloride, ≥99.5%

Product name ChemiPURE Potassium Chloride, ≥99.5%	Catalog no. PCH05, PCH10
Synonyms Potassium chloride; KCl	SDS revision -
CAS no. 7447-40-7	Format version / date 3 / 25 October 2026

01 PRODUCT AND COMPANY IDENTIFICATION

Product identifier	ChemiPURE Potassium Chloride, ≥99.5%
Product code	PCH05 (500 g); PCH10 (1 kg)
CAS number	7447-40-7
EC number	231-211-8
Recommended use	For research use only. Laboratory reagent for buffer preparation, ionic-strength control and analytical applications.
Supplier	EcoTech Biotechnology
Website	www.ecotechbiotech.com
Address	Universite Mah. İpekyolu Cad. Ata Teknokent Sitesi B Blok No: Z10, Yakutiye, Erzurum, Türkiye
Telephone	0090 544 327 34 97
SDS contact	info@ecotechbiotech.com
Emergency telephone	0090 544 327 34 97
Available	Monday-Saturday/08:00-20:00/GMT+3
Languages	Turkish/English
Outside these hours	Contact: info@ecotechbiotech.com

02 HAZARDS IDENTIFICATION

Classification	Not classified as hazardous according to Regulation (EC) No. 1272/2008 (CLP).
Label elements	No hazardous label elements required.
Symbols / pictograms	None
Signal word	None
Hazard statements	None
Precautionary statements - Prevention	Avoid breathing dust. Wear appropriate laboratory gloves and eye protection. Wash hands after handling.
Precautionary statements - Response	Rinse eyes or exposed skin with water. Obtain medical advice if irritation or other symptoms persist.
Other hazards	Airborne dust may cause mechanical irritation of the eyes and respiratory tract.

Composition & response

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03 COMPOSITION / INFORMATION ON INGREDIENTS

Product name	ChemiPURE Potassium Chloride, ≥99.5%
Synonyms	Potassium chloride; muriate of potash; KCl
Concentration	≥99.5% (purity)
Formula	KCl
Molecular weight	74.55 g/mol
Mixture statement	Substance: potassium chloride (CAS 7447-40-7; EC 231-211-8), purity ≥99.5%. Minor impurities are not specified.

04 FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact	Rinse cautiously with plenty of water for several minutes. Remove contact lenses if easily possible. Obtain medical advice if irritation persists.
Skin contact	Rinse skin thoroughly with water. Remove contaminated clothing. Seek medical advice if irritation develops.
Inhalation	Move to fresh air. Seek medical advice if coughing, discomfort or other symptoms persist.
Ingestion	Rinse mouth with water. Drink water if conscious. Do not induce vomiting. Seek medical advice if feeling unwell.
Self-protection of first aider	Avoid dust exposure and wear appropriate personal protective equipment.
Most important symptoms / effects	Dust may cause temporary irritation to the eyes or respiratory tract. No specific delayed effects established.
Notes to physicians	Treat symptomatically.

05 FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, foam, carbon dioxide or dry chemical appropriate for the surrounding fire.
Unsuitable extinguishing media	No specific restrictions on extinguishing agents identified.
Special hazards arising from the substance or mixture	Non-combustible inorganic salt. Under fire conditions, potassium oxides and hydrogen chloride may be released.
Explosion data	Not considered explosive. No specific mechanical or static-sensitivity data available.
Advice for firefighters	Wear protective clothing and self-contained breathing apparatus in a fire. Prevent runoff from entering water systems.

Safe use & protection

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06 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Avoid raising or inhaling dust. Wear laboratory gloves, protective clothing and safety glasses.
Environmental precautions	Avoid uncontrolled release to drains, surface waters and soil.
Methods and materials for containment and cleaning up	Sweep or collect mechanically without generating dust. Place in suitable closed, labelled containers for disposal.
Reference to other sections	See Sections 8 and 13.

07 HANDLING AND STORAGE

Precautions for safe handling	Avoid dust generation and contact with eyes, skin and clothing. Use adequate ventilation and good laboratory hygiene.
Conditions for safe storage	Store at 15–25 °C in a tightly closed container. Keep dry and protected from moisture and incompatible substances.
Container labeling	Keep the original label intact; use correctly labelled, tightly closed containers.

08 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

No substance-specific occupational exposure limits have been established for potassium chloride.

8.2 Exposure controls

Engineering measures	Provide adequate general ventilation. Use local exhaust ventilation where dust is generated.
Hygiene measures	Wash hands after handling. Do not eat, drink or smoke in work areas.
Eye / face protection	Wear safety glasses or chemical safety goggles compliant with EN 166.
Hand protection	Use suitable chemical-resistant protective gloves; inspect before use.
Skin and body protection	Wear a laboratory coat and appropriate protective clothing.
Respiratory protection	Normally not needed with adequate ventilation. Use a suitable particulate filter when dust control is insufficient.

Material properties

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09 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	White crystalline powder (solid)
Odor	Odorless
Odor threshold	Not applicable (odorless)
pH	Approx. 6 (50 g/L in water at 20 °C)
Melting point / freezing point	Approx. 770 °C
Initial boiling point and boiling range	Approx. 1,420 °C (at 760 mmHg)
Flash point	Not applicable (inorganic solid)
Evaporation rate	Not applicable (solid)
Flammability (solid, gas)	Not flammable; non-combustible inorganic solid
Upper / lower flammability or explosive limits	Not applicable
Vapor pressure	No data available
Vapor density	Not applicable (solid)
Relative density	Approx. 1.987 g/cm³
Solubility(ies)	Water: approximately 340 g/L at 20 °C
Partition coefficient: n-octanol / water	Not applicable to inorganic ionic salt
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
Viscosity	Not applicable (solid)
Explosive properties	Not classified as explosive
Oxidizing properties	Not oxidizing

10 STABILITY AND REACTIVITY

Reactivity	No hazardous reactivity known under normal laboratory conditions.
Chemical stability	Stable under recommended dry storage conditions; hygroscopic.
Possibility of hazardous reactions	No dangerous reactions expected during normal handling.
Conditions to avoid	Moisture, excess heat and generation of airborne dust.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Under fire conditions, potassium oxides and hydrogen chloride may form.

Health & environment

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11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Not classified as acutely toxic under CLP. Oral LD50 (rat): approx. 2,600 mg/kg.
Skin corrosion / irritation	Not classified; powder may cause temporary mechanical irritation.
Serious eye damage / eye irritation	Not classified; dust may cause mechanical eye irritation.
Carcinogenicity	Not classified; not listed by IARC, NTP or OSHA as a carcinogen.
Reproductive toxicity	No data available for classification; not classified under CLP.
STOT - SE	Not classified; inhaled dust may irritate the respiratory tract.
STOT - RE	Not classified based on available data.
Aspiration hazard	Not applicable to a solid.

11.2 Potential health effects

Ingestion: Large amounts may cause gastrointestinal discomfort.
Inhalation: Dust may irritate the respiratory tract.
Skin: Dust may cause mild irritation.
Eyes: Dust may cause mechanical irritation.

11.3 Additional information

No additional toxicological data available.

12 ECOLOGICAL INFORMATION

Ecotoxicity	Fish LC50 (96 h): approximately 1,060 mg/L (Lepomis macrochirus). Avoid large releases to water.
Persistence and degradability	Inorganic salt; biodegradation is not applicable. Dissociates into potassium and chloride ions in water.
Bioaccumulative potential	No data available; significant bioaccumulation is not expected for an inorganic salt.
Mobility in soil	High water solubility may result in mobility in soil and water.
Results of PBT and vPvB assessment	No PBT/vPvB classification is assigned; REACH PBT criteria do not normally apply to inorganic substances.

13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Dispose of unused reagent through approved waste channels in accordance with applicable local and national regulations. Do not discharge concentrated quantities to drains.
Contaminated packaging	Dispose of in accordance with local requirements. Recycle containers only after suitable cleaning.

Transport & reference

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14 TRANSPORT INFORMATION

Mode	UN no.	UN proper shipping name	Hazard class	Packing group	Environmental hazards
ADR/RID	-	Not regulated	-	-	No
IMDG	-	Not regulated	-	-	No
IATA	-	Not regulated	-	-	No

15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation	Regulation (EC) No. 1907/2006 (REACH) and Regulation (EC) No. 1272/2008 (CLP). Potassium chloride: CAS 7447-40-7; EC 231-211-8. No hazardous CLP labelling required.
Environmental hazards	Not classified as hazardous to the aquatic environment under CLP.
Chemical safety assessment	No product-specific chemical safety assessment available.

16 OTHER INFORMATION

Key to abbreviations and acronyms

STOT-SE	Specific Target Organ Toxicity - Single Exposure
STOT-RE	Specific Target Organ Toxicity - Repeated Exposure
PBT	Persistent Bioaccumulative and Toxic
vPvB	very Persistent very Bioaccumulative and toxic
ADR	European Agreement concerning the international carriage of Dangerous goods by Road
CAS	Chemical Abstracts Service
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime code for Dangerous Goods
REACH	Registration, Evaluation, Authorization and restriction of Chemicals
RID	Regulations concerning the International transport of Dangerous goods by rail