SAFETY DATA SHEET (SDS)

in accordance with Regulation (EC) No 1907/2006 (REACH), Annex II — Regulation (EU) 2020/878

Date: 17.07.2026 | Version: 1 | EN

potassium chloride

potassium chloride

CAS 7447-40-7

ClK

DH SCIENTIFIC

MOLAR MASS
74.55

1. Identification of the substance/mixture and of the company/undertaking

1.1 Substance name	—
1.1 IUPAC name	potassium chloride
1.1 CAS number	7447-40-7
1.1 EC number	No data
1.1 PubChem CID	4873
1.1 InChIKey	WCUXLLCKKVVCTQ-UHFFFAOYSA-M
1.1 SMILES	[Cl-].[K+]
1.1 Molecular formula	ClK [7]
1.1 Molar mass	74.55 g/mol [7]
1.1 Exact mass	—

1.2 Uses

For laboratory and research purposes. Not for use in the production of food, medicines or cosmetics without appropriate authorisation.

1.3 Details of the supplier

Name	ADVANCED CHEMISTRY R&D SOLUTIONS
Address	ul. Juliana Przybosia 8, 21-400 Łuków, Poland
Tax ID (NIP)	
Tel.	
E-mail	
Website	

1.4 Emergency telephone number

Emergency telephone	+48 42 631 47 24

Toxicological Information Centre (CIT), Łódź — available 24/7

2. Hazards identification

3. Composition/information on ingredients

Substance type	pure substance
CAS Number	7447-40-7
Molecular formula	ClK
Concentration	≥99% (typical reagent-grade purity — to be confirmed by the supplier's specification)

4. First aid measures

Inhalation

Move the affected person to fresh air. Keep at rest. If not breathing: artificial respiration (qualified personnel only). [1][2]

Skin contact

Remove contaminated clothing. Rinse skin with soap and water (min. 15 minutes). [1][2]

Eye contact

Rinse eyes with running water (min. 15 minutes). Remove contact lenses if possible. If irritation persists — consult an ophthalmologist. [1][2]

Ingestion

Do NOT induce vomiting (unless directed by a physician). Rinse mouth with water. Never give anything by mouth to an unconscious person. Poison Centre Łódź: +48 42 631 47 24 (24/7). Emergency number: 112. [1][2]

Symptoms and effects

No specific symptoms described in the literature. [1][2]

Notes for physician

Symptomatic treatment. No specific antidote. [1][2]

Emergency numbers: CIT Łódź: +48 42 631 47 24 (24/7) | Emergency: 112

5. Firefighting measures

Suitable extinguishing media	Adapt extinguishing media to surroundings. CO2, dry powder, foam. [1][2]
Unsuitable extinguishing media	No specific restrictions. [1][2]
Specific hazards	Thermal decomposition products:HCl (hydrogen chloride).
Advice for firefighters	Use self-contained breathing apparatus (SCBA). Full protective suit. [1][2]

6. Accidental release measures

Personal precautions	Use personal protective equipment (see Section 8). Avoid breathing dust. [1][2]
Environmental precautions	Prevent entry into sewers, groundwater and surface water. [1][2]
Methods for containment and cleaning up	1. Zbierz miotłą 2. Pozostałości spłucz wodą 3. Brak zagrożenia (sól mineralna używana w żywności jako zamiennik NaCl) [PL]
Related sections	8; 13
Large spill	1. Collect mechanically 2. Dispose of as non-hazardous waste
Absorbent	dry sweeping
HAZMAT response required	No
Required PPE	Gloves: standard lab

7. Handling and storage

Precautions	Work in a fume hood or with adequate ventilation. No eating, drinking or smoking in the work area. [1][2]
Storage temperature	Store at room temperature (15-25°C) or as indicated on the label. [1][2]
Humidity	Store in a dry place (<60% RH). [1][2]
Light	Protect from direct sunlight. [1][2]
Incompatible materials	Strong oxidizers, strong acids, strong bases.

8. Exposure controls/personal protection

8.1 Control parameters

OEL — NDS (Poland)	No NDS (OEL) value in the available working list — verify in the current MRPiPS regulation before use; do not assume the absence of a limit value.
OEL (EU)	The EU OEL value has not been verified against the available dataset — check the IOELV/BOELV directives; do not assume the absence of a value.
DNEL	No data available.
PNEC	No data available.

8.2 Personal protective equipment (PPE)

Chemical-resistant protective gloves
EN ISO 374-1:2016+A1:2018
standard lab

Closed safety spectacles or goggles
EN ISO 16321-1:2022 / EN 166:2001

Closed safety footwear with toe protection
EN ISO 20345:2022 (S2/S3)

9. Physical and chemical properties

Property (item 9.1)	Value	Source
Physical state	Solid	
Colour	White crystals or crystalline powder [7]	
Odour	Odorless [7]	
pH (1% aqueous solution)	No data available.	
Melting point	770°C [7]	
Boiling point	No data available.	
Flash point	No data available.	
Flammability	No data available.	
Lower and upper explosion limit	Not applicable	
Density (20°C)	1.984 g/cm³ [7]	
Vapour pressure	No data available.	
Relative vapour density	Not applicable	
Kinematic viscosity	Not applicable	

Property (item 9.1)	Value	Source
Decomposition temperature	Not applicable	
Water solubility (20°C)	355 g/L, 25°C [7]	
Particle characteristics	No data available.	
log Kow (XLogP3)	No data available.	
TPSA	0 Å² [7]	
HBD / HBA	No data available. / No data available.	
Rotatable bonds	No data available.	
Molar mass	74.55 g/mol [7]	
Molecular formula	ClK [7]	

10. Stability and reactivity

Reactivity	Stable under normal storage and handling conditions.
Chemical stability	Thermally stable under recommended conditions.
Hazardous reactions	No hazardous reactions known under normal conditions.
Conditions to avoid	High temperatures, direct sunlight, moisture.
Incompatible materials	Strong oxidizers, strong acids, strong bases.
Decomposition products	Thermal decomposition products:HCl (hydrogen chloride).

11. Toxicological information

LD50 (oral)	LD50 383 mg/kg (mysz, doustnie) [PubChem]
LD50 (dermal)	No data available.
LC50 (inhalation)	No data available.
Skin irritation	No data available.
Eye irritation	No data available.
Sensitisation	No data available.
Mutagenicity	No data available.
Carcinogenicity	No data available.
IARC classification (carcinogenicity)	No individual IARC monograph for this CAS — this is not confirmation of the absence of carcinogenicity (cf. CLP/GHS classification in section 2).
Reproductive toxicity	No data available.
STOT — single exposure	No data available.
STOT — repeated exposure	No data available.
Aspiration hazard	No data available.

12. Ecological information

Aquatic toxicity	No data available.
Persistence / biodegradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
PBT/vPvB assessment	Insufficient data to assess PBT/ vPvB.
Endocrine disrupting properties	No information.

13. Disposal considerations

Disposal method	Hand over for disposal to licensed contractors in accordance with national and local regulations. Do not discharge into sewers.
Waste code (EWC)	16 05 06* — Laboratory and analytical chemicals (e.g. chemical reagents) containing hazardous substances. Verification of the EWC code required. [8]
Packaging	Cleaned packaging may be recycled. Contaminated packaging must be treated as hazardous waste.

14. Transport information

UN number	VERIFICATION REQUIRED — no verified UN assignment.
Environmental hazard	Not classified as environmentally hazardous for transport (no H400/H410/ H411 in CLP Annex VI; no marine pollutant mark required) [3]
Special precautions	Handle as dangerous goods according to the assigned class (ADR/IMDG/IATA); apply the precautions appropriate to that class.
CN/HS code	CN/HS code: verification required in the Eurostat Combined Nomenclature.
Notes	Transport classification not verified. Do not assume the absence of restrictions — check ADR/IMDG/IATA before shipping.

15. Regulatory information

SVHC status	SVHC status not verified against the available dataset — check the current ECHA Candidate List; do not assume absence. [1]
REACH Annex XIV	Not verified against the ECHA Authorisation List — check REACH Annex XIV. [1]
REACH Annex XVII	Not confirmed in the available Annex XVII dataset — verify against the current ECHA list before placing on the market; do not assume absence of restriction. [1]
REACH registration	Substance registered under REACH. Tonnage range: >1000 t/a.
EC number type	EINECS
Verification date	2026-07-17

16. Other information

Legal status of the harmonised classification: CLP — Regulation (EC) No 1272/2008, Annex VI (current ECHA harmonised inventory, as at the issue date of this sheet). Entries entering into force after 17.07.2026 were omitted as future (not yet applicable).

Data aggregated automatically from public reference databases (PubChem, ECHA, NIST and others).

Abbreviations

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging (Reg. (EC) 1272/2008)
CMR	Carcinogenic, Mutagenic, toxic to Reproduction
DNEL	Derived No-Effect Level

EC	European Community number
EPI	Personal protective equipment
GHS	Globally Harmonized System
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
SDS	Safety Data Sheet
LC50	Lethal Concentration, 50%
LD50	Lethal Dose, 50%
NDS	Maximum admissible concentration (workplace, PL)
NDSCh	Short-term exposure limit (PL)
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (Reg. (EC) 1907/2006)
STOT	Specific Target Organ Toxicity
SVHC	Substance of Very High Concern
TPSA	Topological Polar Surface Area
vPvB	very Persistent and very Bioaccumulative

Version history

v1 (17.07.2026)	Prepared on the basis of the ECHA harmonised classification (Annex VI to CLP, ATP 23).

References

[1] EP and Council. Reg.(EC) No 1907/2006 (REACH). Art.31, Annex II. OJ EU L 396/2006. URL: https://eur-lex.europa.eu/eli/reg/2006/1907/oj Accessed: 2026-07-17.

[2] European Commission. Reg.(EU) 2020/878 — amending Annex II REACH. OJ EU L 203/2020. From 01.01.2023. URL: https://eur-lex.europa.eu/eli/reg/2020/878/oj Accessed: 2026-07-17.

[3] EP and Council. Reg.(EC) 1272/2008 (CLP) + ATP 23. OJ EU L 353/2008. URL: https://eur-lex.europa.eu/eli/reg/2008/1272/oj Accessed: 2026-07-17.

[4] United Nations. GHS Rev.9. ST/SG/AC.10/30/Rev.9. New York and Geneva: United Nations, 2021. URL: https://unece.org/transport/dangerous-goods/ghs-rev9-2021 Accessed: 2026-07-17.

[5] ISO. ISO 7010:2019 — Graphical symbols. Safety signs. URL: https://www.iso.org/standard/72424.html Accessed: 2026-07-17.

[6] ISO. ISO 3864-1:2011 — Safety colours and safety signs. URL: https://www.iso.org/standard/51021.html Accessed: 2026-07-17.

[7] PubChem. National Center for Biotechnology Information (NIH/NLM), chemical compound database. URL: https://pubchem.ncbi.nlm.nih.gov/compound/4873 Accessed: 2026-07-17.

[8] European Commission. Decision 2000/532/EC establishing a list of wastes (European Waste Catalogue). OJ EU L 226/3. URL: https://eur-lex.europa.eu/eli/dec/2000/532/oj Accessed: 2026-07-17.

[9] MRiPS Regulation of 12.06.2018 — NDS/NDN. Journal of Laws 2024 item 1017. URL: https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20240001017 Accessed: 2026-07-17.

External links

NIST: https://webbook.nist.gov/cgi/cbook.cgi?ID=7447-40-7

ChEMBL: https://www.ebi.ac.uk/chembl/compound_report_card/CHEMBL1200731

Generator: Document compiled automatically on the basis of the ECHA harmonised classification (Annex VI to CLP) and public physicochemical databases.

Author: www.MolGod.org — platform for automated safety data sheets (SDS).

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