



G-Biosciences, St Louis, MO, USA ♦ 1-800-628-7730 ♦ 1-314-991-6034 ♦ technical@GBiosciences.com

A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Potassium Chloride; KCl

Cat. # RC-124



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potassium chloride

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Date of issue: 5/20/2016 Revision date: 10/31/2025 Supersedes: 1/14/2025 Version: 9.0

SECTION 1 Identification

1.1. Product identifier

Product form	: Substance
Substance name	: potassium chloride
Chemical name	: Potassium chloride
IUPAC name	: potassium chloride
CAS-No.	: 7447-40-7
Product code	: 233P
Formula	: KCl
BIG No	: 14481

1.2. Other means of identification

Synonyms	: camcopot / chloride of potash / chloropotassuril / chlorvescent / diffu-K / dipotassium dichloride / emplets potassium chloride / enseal / enseal potassium chloride / kalcorid / kaleorid / kalitabs / kalium duriles / kaochlor / kaon-Cl / kaon-Cl 10 / kaon-Cl tabs / kaskay / kay ciel / kayback / kay- cee-l / K-contin / K-lor / klor-con / klotrix / K-lyte/Cl / K-norm / K-predne-dome / K-prende-dome / K-tab / lento-kalium / leo K / micro K / monopotassium chloride / muriate of potash / nat-sylvite / natural sylvite / neobakasal / nu-K / peter-kal / pfiklor / potassium chloride / potassium monochloride / potassium muriate / potavescent / rekawan / repone K / slow-K / slow-K tablets / span-K / super K / sylvine / sylvite / tripotassium trichloride
Other means of identification	: potassium chloride
EC-No.	: 231-211-8

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture	: Photographic chemical: component, Chemical raw material, Laboratory chemical, Food industry: additive, Fertiliser: raw material, Veterinary medicine
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1.4. Supplier's details

G-Biosciences/ Geno Technology, Inc.
9800 Page Avenue
St. Louis, MO 63132-1429, USA
Tel. 1-800-628-7730
www.GBiosciences.com

1.5. Emergency phone number

Emergency number	: Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)
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SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. Label elements

GHS US labeling

No labeling applicable

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

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2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

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Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
potassium chloride (Main constituent)	camcopot / chloride of potash / chloropotassuril / chlorvescent / diffu-K / dipotassium dichloride / emplets potassium chloride / enseal / enseal potassium chloride / kalcorid / kaleorid / kalitabs / kalium duriles / kaochlor / kaon-Cl / kaon-Cl 10 / kaon-Cl tabs / kaskay / kay ciel / kayback / kay- cee-I / K-contin / K-lor / klor-con / klotrix / K-lyte/Cl / K-norm / K- predne-dome / K- prende-dome / K- tab / lento-kalium / leo K / micro K / monopotassium chloride / muriate of potash / nat- sylvite / natural sylvite / neobakasal / nu-K / peter-kal / pfiklor / potassium chloride / potassium monochloride / potassium muriate / potavescent / rekawan / repone K / slow-K / slow- K tablets / span-K / super K / sylvine / sylvite / tripotassium trichloride	CAS-No.: 7447-40-7	100	Not classified

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

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SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center/doctor/physician if you feel unwell.
Self protection of the first-aider	: First aid workers will be equipped with suitable personal protective equipment.

4.2. Most important symptoms/effects, acute and delayed

Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: AFTER INHALATION OF DUST/MIST: Slight irritation.
Symptoms/effects after skin contact	: No effects known.
Symptoms/effects after eye contact	: No effects known.
Symptoms/effects after ingestion	: AFTER INGESTION OF HIGH QUANTITIES: Feeling of weakness. Gastrointestinal complaints. Nausea. Vomiting. Diarrhoea. Change in the haemogramme/blood composition. Cardiac and blood circulation effects. Low arterial pressure. Dizziness. Disturbances of heart rate. Cramps/uncontrolled muscular contractions. Disturbances of consciousness.
Chronic symptoms	: No effects known.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: DIRECT FIRE HAZARD: Non combustible.
Explosion hazard	: DIRECT EXPLOSION HAZARD: No direct explosion hazard.
Hazardous decomposition products in case of fire	: On burning: release of toxic and corrosive gases/vapours (hydrogen chloride).

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
For non-emergency personnel	
Protective equipment	: Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Dust cloud production: self-contained breathing apparatus (EN 136 + EN 137).
Emergency procedures	: Ventilate spillage area. Evacuate unnecessary personnel.
Measures in case of dust release	: In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.
For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate area. Evacuate unnecessary personnel.
Environmental precautions	: Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

For containment	: Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up	: Mechanically recover the product. On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.
Other information	: Dispose of materials or solid residues at an authorized site.

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Store in a well-ventilated place. Keep cool. Keep only in the original container in a cool, well-ventilated place away from : Keep container closed when not in use.
Storage area	: Meet the legal requirements. Store in a cool area. Store in a dry area. Keep container in a well-ventilated place. Protect against frost. Keep out of direct sunlight.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight.
Information on mixed storage	: KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids. water/moisture.
Heat-ignition	: KEEP SUBSTANCE AWAY FROM: heat sources.
Special rules on packaging	: SPECIAL REQUIREMENTS: closing. dry. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials	: Store always product in container of same material as original container.

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SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Materials for protective clothing:
Excellent resistance: Nitrile rubber. latex. Good resistance: butyl rubber. Less resistance: Polyvinylchloride (PVC). neoprene (chloroprene rubber)
Hand protection:
Wear protective gloves.
Eye protection:
Chemical goggles or safety glasses. Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
Wear appropriate mask

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Powder.
Color	: White
Odor	: Odourless
Odor threshold	: No data available
pH	: 5.5 – 8.5 (5 %, 20 °C)
Melting point	: 770 °C
Freezing point	: Not applicable
Boiling point	: Not applicable (melting point > 300 °C)
Flash point	: Not applicable
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: Not applicable (solid)
Relative vapor density at 20°C	: Not applicable (solid)
Relative density	: 1.98 (20 °C)

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Density	: 1984 kg/m ³ (20 °C)
Molecular mass	: 74.55 g/mol
Solubility	: Soluble in water. Insoluble in oils/fats. Water: 36 g/100ml (25 °C) Ethanol: 0.4 g/100ml
Partition coefficient n-octanol/water (Log Pow)	: -0.46 Source: OECD Screening Information Data Set
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available in the literature
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable (solid)
Explosion limits	: Not applicable
Explosive properties	: Not classified.
Oxidizing properties	: Not classified.
Particle characteristics	: Particle size : 81 µm (D50, OECD 110: Particle Size Distribution/Fibre Length and Diameter Distributions)

9.2. Data relevant with regard to physical hazard classes (supplemental)

Minimum ignition energy	: Not applicable
Specific conductivity	: No data available in the literature
SADT	: Not applicable
VOC content	: Not applicable (inorganic)
Other properties	: Hygroscopic. Neutral reaction.

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions. Not established.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Not established.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products. fume. Carbon monoxide. Carbon dioxide.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

potassium chloride (7447-40-7)

LD50 oral rat	3020 mg/kg body weight (Rat, Female, Experimental value, Oral)
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potassium chloride (7447-40-7)	
ATE US (oral)	3020 mg/kg body weight
Skin corrosion/irritation	: Not classified pH: 5.5 – 8.5 (5 %, 20 °C)
Serious eye damage/irritation	: Not classified pH: 5.5 – 8.5 (5 %, 20 °C)
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
potassium chloride (7447-40-7)	
NOAEL (chronic,oral,animal/male,2 years)	≈ 1820 mg/kg body weight Animal: rat, Animal sex: male, Remarks on results: other:Effect type: toxicity (migrated information)
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
potassium chloride (7447-40-7)	
NOAEL (oral,rat,90 days)	≈ 1820 mg/kg body weight Animal: rat, Animal sex: male
Aspiration hazard	: Not classified
potassium chloride (7447-40-7)	
Viscosity, kinematic	Not applicable
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: AFTER INHALATION OF DUST/MIST: Slight irritation.
Symptoms/effects after skin contact	: No effects known.
Symptoms/effects after eye contact	: No effects known.
Symptoms/effects after ingestion	: AFTER INGESTION OF HIGH QUANTITIES: Feeling of weakness. Gastrointestinal complaints. Nausea. Vomiting. Diarrhoea. Change in the haemogramme/blood composition. Cardiac and blood circulation effects. Low arterial pressure. Dizziness. Disturbances of heart rate. Cramps/uncontrolled muscular contractions. Disturbances of consciousness.
Chronic symptoms	: No effects known.
SECTION 12 Ecological information	
12.1. Ecotoxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Ecology - air	: Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 2024/573). Not classified as dangerous for the ozone layer (Regulation (EC) No 2024/590).
Ecology - water	: Slightly harmful to crustacea (Daphnia). Slightly harmful to fishes. Inhibition of activated sludge. Slightly harmful to algae.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
potassium chloride (7447-40-7)	
LC50 - Fish [1]	880 mg/l (EPA 600/4-90/027, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Nominal concentration)

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potassium chloride (7447-40-7)	
EC50 - Crustacea [1]	440 – 880 mg/l (EPA 600/4-90/027, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 - Other aquatic organisms [1]	440 – 880 mg/l Test organisms (species): other:see below
EC50 - Other aquatic organisms [2]	580 – 670 mg/l Test organisms (species): other:see below
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	> 100 mg/l Source: ECHA

12.2. Persistence and degradability

potassium chloride (7447-40-7)	
Persistence and degradability	Not established.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

potassium chloride (7447-40-7)	
Partition coefficient n-octanol/water (Log Pow)	-0.46 Source: OECD Screening Information Data Set
Bioaccumulative potential	Not established.

12.4. Mobility in soil

potassium chloride (7447-40-7)	
Ecology - soil	Low potential for adsorption in soil.

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No
Other information	: Avoid release to the environment.

SECTION 13 Disposal considerations

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Waste treatment methods.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.
Ecological waste information	: Avoid release to the environment.

SECTION 14 Transport information

In accordance with DOT / TDG / IATA

14.1. UN number

Not regulated for transport

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14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not regulated
Proper Shipping Name (TDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Not regulated

TDG
Transport hazard class(es) (TDG) : Not regulated

IATA
Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (DOT) : Not regulated
Packing group (TDG) : Not regulated
Packing group (IATA) : Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT
Not regulated

TDG
Not regulated

IATA
Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
potassium chloride	7447-40-7	Present		

15.2. International regulations

CANADA

potassium chloride (7447-40-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

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National regulations

No additional information available

15.3. State regulations

No additional information available

SECTION 16 Other information

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Revision date : 10/31/2025

Date of issue : 5/20/2016

Other information : None.

Abbreviations and acronyms	
ACGIH	American Conference of Government Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration

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Abbreviations and acronyms	
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety & Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

NFPA health hazard

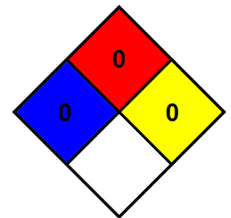
: 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard

: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.