

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Reference number: P0515

Issue date: 17/08/2023 Revision date: 09/08/2023 Supersedes version of: 08/03/2018 Version: 3.0

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

1.1. Product identifier

Product form : Substance
Trade name : Potassium chloride
EC-No. : 231-211-8
CAS-No. : 7447-40-7
REACH registration No. : 01-2119539416-36-xxxx
Product code : P0515
Formula : KCl
Product group : Raw material
Other means of identification : potassium chloride

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

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Duchefa Biochemie B.V.
A. Hofmanweg 71
2031 BH Haarlem
The Netherlands
T +31(0)23-5319093 - F +31(0)23-5318027
info@duchefa.nl

1.4. Emergency telephone number

Emergency number : Supplier contact information:
+31(0)23-5319093 (M-F 09:00-17:00)
+31(0)6-30008100 (outside office hours)

Country	Organisation/Company	Address	Emergency number	Comment
	World Health Organization world directory of poison centres	http://apps.who.int/poisoncentres/		Consult website for a local poison centre

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients**3.1. Substances**

Substance type : Mono-constituent

Name	Product identifier	%
Potassium chloride	CAS-No.: 7447-40-7 EC-No.: 231-211-8 REACH-no: 01-2119539416-36-xxxx	≥ 99

3.2. Mixtures

Not applicable

SECTION 4: First aid measures**4.1. Description of first aid measures**

First-aid measures general : Seek medical attention if ill effect or irritation develops.
First-aid measures after inhalation : Remove victim to fresh air.
First-aid measures after skin contact : Wash off with soap and plenty of water.
First-aid measures after eye contact : Rinse with water.
First-aid measures after ingestion : Rinse mouth out with water.

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

Symptoms/effects after ingestion : Ingestion may cause nausea, vomiting and diarrhea.

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

No additional information available

SECTION 5: Firefighting measures**5.1. Extinguishing media**Suitable extinguishing media : Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO₂). Water spray.**5.2. Special hazards arising from the substance or mixture**

Hazardous decomposition products in case of fire : When heated to decomposition, emits toxic fumes:

5.3. Advice for firefighters

Firefighting instructions : Prevent fire fighting water from entering the environment.
Protection during firefighting : Wear proper protective equipment.

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SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

General measures : Wear proper protective equipment.

6.1.1. For non-emergency personnel

Measures in case of dust release : Use good housekeeping practices to avoid rendering dust airborne.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Sweep up dry powder and dispose properly.

6.4. Reference to other sections

Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, well-ventilated area. Store at room temperature.

7.3. Specific end use(s)

For professional use only. Duchefa Biochemie B.V. products are intended only for "in vitro laboratory" research purposes.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****8.1.1 National occupational exposure and biological limit values**

Potassium chloride (7447-40-7)	
Bulgaria - Occupational Exposure Limits	
Local name	Калиев хлорид
OEL TWA	5 mg/m ³
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.)
Latvia - Occupational Exposure Limits	
Local name	Kālija hlorīds
OEL TWA	5 mg/m ³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2011. gada 1. februārī noteikumiem Nr. 92)
Lithuania - Occupational Exposure Limits	
Local name	Kalio chloridas
IPRV (OEL TWA)	5 mg/m ³

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Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
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8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Potassium chloride (7447-40-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	910 mg/kg bodyweight/day
Acute - systemic effects, inhalation	5320 mg/m ³
Long-term - systemic effects, dermal	303 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1064 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	910 mg/kg bodyweight/day
Acute - systemic effects, inhalation	1365 mg/m ³
Acute - systemic effects, oral	455 mg/kg bodyweight/day
Long-term - systemic effects, oral	91 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	273 mg/m ³
Long-term - systemic effects, dermal	182 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,1 mg/l
PNEC aqua (marine water)	0,1 mg/l
PNEC aqua (intermittent, freshwater)	1 mg/l
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Wear suitable protective clothing.

8.2.2.1. Eye and face protection

Eye protection:

Safety glasses (to European standard EN 166 or equivalent)

8.2.2.2. Skin protection

Hand protection:

Wear gloves

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8.2.2.3. Respiratory protection

Respiratory protection:

Where excessive dust may result, wear approved mask. Type P1 (EN 143)

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: White.
Appearance	: Powder.
Molecular mass	: 74,6 g/mol
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: 773 °C
Freezing point	: Not available
Boiling point	: 1413 °C
Flammability	: Not available
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: 5,5 – 8 (50 g/l, 20 °C)
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Water: 347 g/l at 20 °C
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1,98 g/cm ³ at 20 °C
Relative density	: 1,984 Type: 'relative density'
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Bulk density : $\approx 1000 \text{ kg/m}^3$

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

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10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

When heated to decomposition, emits dangerous fumes:

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

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

Potassium chloride (7447-40-7)	
LD50 oral rat	2600 mg/kg
Skin corrosion/irritation	: Not classified pH: 5,5 – 8 (50 g/l, 20 °C)
Serious eye damage/irritation	: Not classified pH: 5,5 – 8 (50 g/l, 20 °C)
Respiratory or skin sensitisation	: 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 bodyweight Animal: rat, Animal sex: male
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 bodyweight Animal: rat, Animal sex: male
Aspiration hazard	: Not classified

11.2. Information on other hazards**11.2.1. Endocrine disrupting properties**

No additional information available

11.2.2. Other information

Other information : See actual entry in RTECS for complete information: TS8050000

SECTION 12: Ecological information**12.1. Toxicity**

Hazardous to the aquatic environment, short-term (acute) : Not classified
 Hazardous to the aquatic environment, long-term (chronic) : Not classified

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Potassium chloride (7447-40-7)	
LC50 - Fish [1]	920 mg/l <i>Gambusia affinis</i> (Mosquito fish)
EC50 - Crustacea [1]	825 mg/l EC50 48h - <i>Daphnia magna</i> [mg/l]
EC50 - Other aquatic organisms [1]	440 – 880 mg/l Test organisms (species): other:
EC50 - Other aquatic organisms [2]	580 – 670 mg/l Test organisms (species): other:
EC50 72h - Algae [1]	2500 mg/l (<i>Desmodesmus subspicatus</i>)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Prevent entry to sewers and public waters. Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
14.1. UN number or ID number		
Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name		
Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not regulated	Not regulated	Not regulated
14.4. Packing group		
Not regulated	Not regulated	Not regulated
14.5. Environmental hazards		
Not regulated	Not regulated	Not regulated
No supplementary information available		

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14.6. Special precautions for user**Overland transport**

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations****REACH Annex XVII (Restriction List)**

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Ensure all national/local regulations are observed.

France

Occupational diseases	
Code	Description
RG 67	Nasal septum lesions caused by potassium chloride dust in potash mines and their dependencies

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to VwVwS, Annex 1 or 2; ID No. 230).

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

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Netherlands

SZW-lijst van kankerverwekkende stoffen	: The substance is not listed
SZW-lijst van mutagene stoffen	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: The substance is not listed

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Substance type	Added	
1.1	Other means of identification	Added	
8	Regulatory reference	Added	
8	Regulatory reference	Added	
8	Regulatory reference	Added	
8.1	IPRV (OEL TWA)	Added	
8.1	Local name	Added	
8.1	OEL TWA	Added	
8.1	Local name	Added	
8.1	OEL TWA	Added	
8.1	Local name	Added	
8.1	PNEC sewage treatment plant	Added	
8.1	PNEC aqua (marine water)	Added	
8.1	PNEC aqua (freshwater)	Added	
8.1	PNEC aqua (intermittent, freshwater)	Added	
8.1	Long-term - systemic effects, oral	Added	
8.1	Long-term - systemic effects, inhalation	Added	
8.1	Long-term - systemic effects, inhalation	Added	
8.1	Long-term - systemic effects, dermal	Added	
8.1	Long-term - systemic effects, dermal	Added	
8.1	Acute - systemic effects, oral	Added	
8.1	Acute - systemic effects, inhalation	Added	
8.1	Acute - systemic effects, inhalation	Added	
8.1	Acute - systemic effects, dermal	Added	
8.1	Acute - systemic effects, dermal	Added	
9.1	Relative density	Added	

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Indication of changes			
Section	Changed item	Change	Comments
11.1	NOAEL (oral, rat, 90 days)	Added	
11.1	NOAEL (chronic, oral, animal/male, 2 years)	Added	
11.1	ATE CLP (oral)	Modified	
12.1	EC50 - Other aquatic organisms [2]	Added	
12.1	EC50 - Other aquatic organisms [1]	Added	

Abbreviations and acronyms:	
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
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
EC50	Median effective concentration
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet

Data sources : Manufacturer. ECHA (European Chemicals Agency). REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Safety Data Sheet (SDS), EU Duchefa 2023

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.