Potassium sulphate

P0535

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Reference number: P0535
Issue date: 12/02/2025 Revision date: 12/02/2025 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 sulphate
EC-No.	:	231-915-5
CAS-No.	:	7778-80-5
REACH registration No.	:	01-2119489441-34-xxxx
Product code	:	P0535
Formula (Override)	:	K_2SO_4
Product group	:	Raw material

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)

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

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

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 sulphate	CAS-No.: 7778-80-5 EC-No.: 231-915-5 REACH-no: 01-2119489441-34-xxxx	≥ 98,5

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If you feel unwell, seek medical advice.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation : None under normal conditions. Dust of the product, if present, may cause respiratory irritation after excessive inhalation exposure.
Symptoms/effects after skin contact : None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.
Symptoms/effects after eye contact : None under normal conditions. Dust from this product may cause eye irritation.
Symptoms/effects after ingestion : Ingestion may cause nausea, vomiting and diarrhea.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2). Water spray.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : - SOx.

5.3. Advice for firefighters

Firefighting instructions : Prevent fire fighting water from entering the environment. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Wear proper protective equipment. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Wear proper protective equipment. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area.
Measures in case of dust release : Use good housekeeping practices to avoid rendering dust airborne.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Evacuate unnecessary personnel.

6.2. Environmental precautions

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

6.3. Methods and material 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. Sweep up dry powder and dispose properly.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Concerning disposal elimination after cleaning, see section 13. For further information refer to section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Handle in accordance with good industrial hygiene and safety procedures.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Store in dry, well-ventilated area. Store at room temperature.
Packaging materials : Store always product in container of same material as original container.

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

No additional information available

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 sulphate (7778-80-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	21,3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	37,6 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	12,8 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	11,1 mg/m³
Long-term - systemic effects, dermal	12,8 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,68 mg/l
PNEC aqua (marine water)	0,068 mg/l
PNEC aqua (intermittent, freshwater)	6,8 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

Appropriate engineering controls:
Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:
Wear recommended personal protective equipment.

8.2.2.1. Eye and face protection

Eye protection			
Type	**Field of application**	**Characteristics**	**Standard**
Safety glasses	Dust		EN 166

8.2.2.2. Skin protection

Skin and body protection:
In case of possible repeated skin contact wear protective clothing

Hand protection					
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**	**Standard**
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,11		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection			
Device	**Filter type**	**Condition**	**Standard**
Dust mask	Type P1	Dust protection	EN 143

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	White.
Appearance	:	Powder.
Molecular mass	:	174,2 g/mol
Odour	:	Characteristic.
Odour threshold	:	Not available
Melting point	:	1069 °C
Freezing point	:	Not applicable
Boiling point	:	1689 °C
Flammability	:	Non flammable.
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 – 7,5
pH solution concentration	:	5 % 20 °C
Viscosity, kinematic	:	Not applicable
Solubility	:	Water: 111 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	:	2,662 g/cm³ at 20 °C
Relative density	:	Not available
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	:	≈ 1400 kg/m³

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.

10.3. Possibility of hazardous reactions

Catalyst.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

When heated to decomposition, emits dangerous fumes: - SOx.

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 sulphate (7778-80-5)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity), Guideline: other:

Skin corrosion/irritation : Not classified
pH: 5,5 – 7,5
Serious eye damage/irritation : Not classified
pH: 5,5 – 7,5
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Potassium sulphate (7778-80-5)	
NOAEL (chronic, oral, animal/male, 2 years)	256 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (chronic, oral, animal/female, 2 years)	284 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

Potassium sulphate (7778-80-5)	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The substance/mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2. Other information

Other information : See actual entry in RTECS for complete information: TT5900000

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

Potassium sulphate (7778-80-5)	
LC50 - Fish [1]	680 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	890 mg/l EC50 48h - Daphnia magna [mg/l]
EC50 72h - Algae [1]	2900 mg/l

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

Adverse effects on the environment caused by endocrine disrupting properties : The substance/mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

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

Regional waste regulation : Disposal must be done according to official regulations.

Waste treatment methods	:	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	:	Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	:	Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.
Additional information	:	When not empty dispose of this container at hazardous or special waste collection point. Do not re-use empty containers.

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		

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 2024/590)

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.

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 255).

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

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 chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
	Adverse health effects caused by endocrine disrupting properties	Added	
	Substance type	Added	
1.1	Formula	Modified	
2.1	Adverse physicochemical, human health and environmental effects	Added	
3	Composition/information on ingredients	Modified	
4.1	First-aid measures for first aider	Added	
4.1	First-aid measures after skin contact	Modified	
4.1	First-aid measures after inhalation	Modified	
4.1	First-aid measures after ingestion	Modified	

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
4.1	First-aid measures after eye contact	Modified	
4.1	First-aid measures general	Modified	
4.2	Symptoms/effects after skin contact	Added	
4.2	Symptoms/effects after inhalation	Added	
4.2	Symptoms/effects after eye contact	Added	
4.3	Other medical advice or treatment	Added	
5.1	Unsuitable extinguishing media	Added	
5.2	Fire hazard	Added	
5.2	Explosion hazard	Added	
5.2	Hazardous decomposition products in case of fire	Modified	
5.3	Protection during firefighting	Modified	
5.3	Firefighting instructions	Modified	
6.1	Protective equipment	Added	
6.1	Emergency procedures	Added	
6.1	Protective equipment	Added	
6.1	Emergency procedures	Added	
6.1	General measures	Modified	
6.2	Environmental precautions	Modified	
6.3	For containment	Added	
6.3	Other information	Added	
6.3	Methods for cleaning up	Modified	
6.4	Reference to other sections (8, 13)	Modified	
7.1	Additional hazards when processed	Added	
7.1	Hygiene measures	Added	
7.1	Precautions for safe handling	Modified	
7.2	Technical measures	Added	
7.2	Packaging materials	Added	
8	Formula	Modified	
8.1	PNEC sewage treatment plant	Added	
8.1	PNEC aqua (marine water)	Added	
8.1	PNEC aqua (intermittent, freshwater)	Added	
8.1	PNEC aqua (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	

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
8.1	Long-term - systemic effects, dermal	Added	
8.2	Environmental exposure controls	Added	
8.2	Personal protective equipment	Added	
8.2	Appropriate engineering controls	Added	
8.2	Respiratory protection	Removed	
8.2	Eye protection	Removed	
8.2	Skin and body protection	Modified	
9	Concentration of the solution used for the pH measurement	Added	
9	Flammability	Added	
9	Viscosity, kinematic	Added	
9	Freezing point	Added	
9	Flash point	Added	
9	Auto-ignition temperature	Added	
9	pH	Modified	
9.1	Explosive limits (vol %)	Added	
10.1	Reactivity	Added	
10.4	Conditions to avoid	Added	
11.1	NOAEL (chronic, oral, animal/male, 2 years)	Added	
11.1	NOAEL (chronic, oral, animal/female, 2 years)	Added	
11.1	LD50 dermal rat	Added	
11.1	LD50 oral rat	Modified	
11.1	ATE CLP (oral)	Added	
12.1	Ecology - general	Added	
12.1	LC50 fish 1	Modified	
12.6	Adverse effects on the environment caused by endocrine disrupting properties	Added	
13.1	Product/Packaging disposal recommendations	Added	
13.1	Sewage disposal recommendations	Added	
13.1	Regional waste regulation	Added	
13.1	Waste treatment methods	Modified	
13.1	Additional information	Modified	
15.2	Chemical safety assessment	Added	
16	Other information	Added	

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
16	Abbreviations and acronyms	Modified	
16	Data sources	Modified	

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
ACGIH	American Conference of Government Industrial Hygienists
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstract Service number
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
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
NOAEC	No-Observed Adverse Effect Concentration

Abbreviations and acronyms:	
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
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
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

Data sources : Supplier's safety documents. 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.

Other information : DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness.

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.