

according to Regulation (EC) No 1907/2006

Potassium peroxodisulfate v.p.

Revision: 24.03.2025 Product code: AC14.00505 Page 1 of 13

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

1.1. Product identifier

Potassium peroxodisulfate v.p.

REACH Registration Number: 01-2119495676-19-XXXX

CAS No: 7727-21-1 Index No: 016-061-00-1 EC No: 231-781-8

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

Use of the substance/mixture

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Details of the supplier of the safety data sheet

Company name: AnalytiChem Services, Unipessoal, Lda

Rua de Júlio Dinis 676 7º Street: Place: N-4050-320 Porto +351 226002917 Telephone: info@analytichem.com E-mail: Contact person: SDS service department E-mail: SDS@analytichem.com www.analytichem.com Internet: SDS service department Responsible Department:

Supplier or manufacturer details

Company name: AnalytiChem Belgium NV
Street: Industriezone "De Arend" 2

Place: B-8210 Zedelgem
Telephone: +32 50 28 83 20

E-mail: info.be@analytichem.com
Contact person: SDS service department
E-mail: SDS@analytichem.com

Responsible Department: AnalytiChem:

EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem,

Belgium, +32 50 28 83 20

EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg,

Germany, +49 203 51 94 - 200

EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG

Mijdrecht, The Netherlands, +31 297 286848

UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester,

OX26 4XB, England, +44 1869 355 500

USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States,

+1 800-244-8378

Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X

4B6, Canada, +1 514-457-0701

Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater

North, 3153, Australia, +61 3 9729 0333

1.4. Emergency telephone +353 1 901 4670 (CHEMTREC)

number:



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Further Information

No data available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Ox. Sol. 3; H272 Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Signal word: Danger

Pictograms:







Hazard statements

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P302+P352 IF ON SKIN: Wash with plenty of water and soap.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: K2O8S2
Molecular weight: 270,32 g/mol



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Relevant ingredients

CAS No	Chemical name					
	EC No	Index No	REACH No			
	Classification (Regulation (EC) No 1272/2008)					
7727-21-1	potassium persulphate					
	231-781-8	016-061-00-1	01-2119495676-19-XXXX			
	Ox. Sol. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3; H272 H302 H315 H319 H334 H317 H335					

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity					
	Specific Conc. L	ecific Conc. Limits, M-factors and ATE						
7727-21-1	231-781-8	781-8 potassium persulphate						
	inhalation: LC50 = >= 2,95 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 742 mg/kg							

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Self-protection of the first aider

After inhalation

Provide fresh air.

Call a physician immediately.

After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Irritant

Allergic reactions

Cough

Dyspnoea

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media



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Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible solids

Oxidizing

Hazardous combustion products

In case of fire may be liberated:

Sulphur oxides

5.3. Advice for firefighters

Do not inhale explosion and combustion gases.

Avoid contact with skin, eyes and clothes.

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders: Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Take up carefully when dry. Take up dust-free and set down dust-free.

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13



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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Handle and open container with care.

Provide adequate ventilation.

Avoid contact with skin, eyes and clothes.

Avoid dust formation. Do not breathe dust.

Use extractor hood (laboratory).

Advice on protection against fire and explosion

Keep away from combustible material.

Advice on general occupational hygiene

Take off contaminated clothing.

Wash hands before breaks and after work.

When using do not eat or drink.

Further information on handling

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and after work.

Draw up and observe skin protection programme.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed and dry.

Store in a place accessible by authorized persons only.

Hints on joint storage

Keep away from combustible material.

national regulations

Further information on storage conditions

storage temperature +5°C - +30°C

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
7727-21-1	Persulphate salts, inorganic; Potassium	-	0.1		TWA (8 h)	
	persulphate					



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DNEL/DMEL values

CAS No	Substance					
DNEL type		Exposure route	Effect	Value		
7727-21-1	potassium persulphate					
Worker DNEL,	long-term	inhalation	systemic	2,06 mg/m³		
Worker DNEL,	acute	inhalation	systemic	590 mg/m³		
Worker DNEL,	long-term	inhalation	local	2,06 mg/m³		
Worker DNEL,	long-term	dermal	systemic	18,2 mg/kg bw/day		
Worker DNEL,	acute	dermal	systemic	400 mg/kg bw/day		
Worker DNEL, long-term		dermal	local	0,102 mg/cm ²		
Worker DNEL,	Worker DNEL, acute		local	2,248 mg/cm ²		
Consumer DNI	EL, long-term	inhalation	systemic	1,03 mg/m³		
Consumer DNI	EL, acute	inhalation	systemic	295 mg/m³		
Consumer DNI	EL, long-term	inhalation	local	1,03 mg/m³		
Consumer DNI	EL, acute	inhalation	local	295 mg/m³		
Consumer DNI	EL, long-term	dermal	systemic	9,1 mg/kg bw/day		
Consumer DNEL, acute		dermal	systemic	200 mg/kg bw/day		
Consumer DNEL, long-term		dermal	local	0,051 mg/cm²		
Consumer DNI	Consumer DNEL, acute		local	1,124 mg/cm²		
Consumer DNI	EL, long-term	oral	systemic	9,1 mg/kg bw/day		
Consumer DNI	EL, acute	oral	systemic	30 mg/kg bw/day		

PNEC values

CAS No	Substance					
Environmenta	Environmental compartment					
7727-21-1	potassium persulphate					
Freshwater	Freshwater					
Freshwater (i	0,763 mg/l					
Marine water	0,011 mg/l					
Freshwater s	0,275 mg/kg					
Marine sedim	0,04 mg/kg					
Micro-organis	3,6 mg/l					
Soil	0,015 mg/kg					

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):



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By long-term hand contact

Trade name/designation KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation KCL 741 Dermatril® L Recommended material: NBR (Nitrile rubber) 0,11 mm Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Wear suitable protective clothing.

Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Respiratory protection

Respiratory protection necessary at: dust formation

Filtering device with filter or ventilator filtering device of type: P2

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: solid
Colour: white
Odour: odourless
Odour threshold: No data available

Melting point/freezing point: 100 °C
Boiling point or initial boiling point and No data available

boiling range:

Flammability: not determined Lower explosion limits: not determined Upper explosion limits: not determined Flash point: X
Auto-ignition temperature: No data available Decomposition temperature: ~100 °C pH-Value (at 20 °C): ~3,2 (50 g/l) Viscosity / kinematic: No data available

Viscosity / kinematic:

Water solubility:

No data available
50 g/l

(at 20 °C)

Solubility in other solvents not determined



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No data available Dissolution rate: not determined Partition coefficient n-octanol/water: No data available Dispersion stability: No data available Vapour pressure: Vapour pressure: No data available 2.48 a/cm³ Density: No data available Relative density: Bulk density: ~1150 kg/m3 not determined Relative vapour density: No data available Particle characteristics:

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

No data available

Sustained combustibility: No data available

Self-ignition temperature

Solid: not determined
Gas: not applicable

Oxidizing properties

The product is: oxidising, Oxidising.

Other safety characteristics

not determined Evaporation rate: Solvent separation test: No data available No data available Solvent content: 100% Solid content: No data available Sublimation point: No data available Softening point: No data available Pour point: No data available No data available Viscosity / dynamic: No data available Flow time:

Further Information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Possibility of hazardous reactions. oxidising, Oxidising.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Metal, Heavy metals

silver, Reducing agent

Combustible substance, Alkali (lye)

Acid. Water

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

No data available



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10.6. Hazardous decomposition products

In case of fire may be liberated: SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicocinetics, metabolism and distribution

No data available

Acute toxicity

Harmful if swallowed.

Pulmonary oedema

Mucous membrane irritation in the mouth, throat, esophagus and gastrointestinal tract.

Inhalation effect: Damage to the respiratory tract.

Resorption (oral)

CAS No	Chemical name								
	Exposure route	Dose		Species	Source	Method			
7727-21-1	potassium persulphate	potassium persulphate							
	oral	LD50 mg/kg	742	Rat	Study report (2001)	EPA OPPTS 870.1100			
	dermal	LD50 mg/kg	> 2000	Rat	Study report (1991)	EPA OPP 81-2			
	inhalation (4 h) dust/mist	LC50 mg/l	>= 2,95	Rat	Study report (1989)	EPA OPP 81-3			

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (potassium persulphate)

May cause an allergic skin reaction. (potassium persulphate)

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation. (potassium persulphate)

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

No data available

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available



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Practical experience

No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information

No data available

Further information

Irritant

Allergic reactions

Cough

Dyspnoea

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name							
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method	
7727-21-1	potassium persulphate							
	Acute fish toxicity	LC50 mg/l	76,3	96 h	Oncorhynchus mykiss	Study report (1993)	other: FIFRA Guideline 72-1 of the Pesti	
	Acute algae toxicity	ErC50	136 mg/l	72 h	Phaeodactylum tricornutum	Study report	OECD Guideline 201	
	Acute crustacea toxicity	EC50	120 mg/l	48 h	Daphnia magna	Study report (1993)	other: FIFRA Guideline 72-2 of the Pesti	

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

No data available

Further information

Avoid release to the environment.

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.



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Send to a physico-chemical treatment facility under observation of official regulations. Do not empty into drains.

Dispose of waste according to applicable legislation.

Do not mix with other wastes.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: UN 1492

14.2. UN proper shipping name: POTASSIUM PERSULPHATE

14.3. Transport hazard class(es): Ш 14.4. Packing group: Hazard label: 5.1 02 Classification code: 5 kg Limited quantity: E1 Excepted quantity: 3 Transport category: 50 Hazard No: Ε Tunnel restriction code:

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1492

14.2. UN proper shipping name: POTASSIUM PERSULPHATE

14.3. Transport hazard class(es):5.114.4. Packing group:IIIHazard label:5.1Classification code:O2Limited quantity:5 kgExcepted quantity:E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 1492

14.2. UN proper shipping name: POTASSIUM PERSULPHATE

14.3. Transport hazard class(es):5.114.4. Packing group:IIIHazard label:5.1Special Provisions:-Limited quantity:5 kgExcepted quantity:E1EmS:F-A, S-Q

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1492

14.2. UN proper shipping name: POTASSIUM PERSULPHATE

14.3. Transport hazard class(es):5.114.4. Packing group:IIIHazard label:5.1Special Provisions:A803Limited quantity Passenger:10 kgPassenger LQ:Y546Excepted quantity:E1

IATA-packing instructions - Passenger: 559



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IATA-max. quantity - Passenger:25 kgIATA-packing instructions - Cargo:563IATA-max. quantity - Cargo:100 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Oxidising substances.

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 75

Information according to Directive

2012/18/EU (SEVESO III):

P8 OXIDISING LIQUIDS AND SOLIDS

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or

nursing mothers.

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 9,12.

Abbreviations and acronyms

Ox. Sol. 3: Oxidising solids, hazard category 3

Acute Tox. 4: Acute toxicity, hazard category 4

Skin Irrit. 2: Skin irritation, hazard category 2

Eye Irrit. 2: Eye irritation, hazard category 2

Resp. Sens. 1: Respiratory sensitisation, hazard category 1

Skin Sens. 1: Skin sensitisation, hazard category 1

STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H and EUH statements (number and full text)



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H272	May intensify fire; oxidiser.							
H302	Harmful if swallowed.							
H315	Causes skin irritation.							
H317	May cause an allergic skin reaction.							
H319	Causes serious eye irritation.							
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.							
H335	May cause respiratory irritation.							

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

Provide appropriate information, instructions and training to users