

Safety Data Sheet (UK REACH) (GB)
Sodium persulphate

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Date printed 19.07.2021, Revision 19.07.2021

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

1.1 Product identifier

	Sodium persulphate
Registration number	01-2119495975-15-0004
IUPAC	Disodium peroxodisulphate
EINECS/ELINCS	231-892-1
CAS	7775-27-1

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

1.2.1 Relevant uses

Usage only in accordance with the identified usages as stipulated in the CSR/CSA.
Initiator for emulsion polymerizations, oxidizing agent

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company	RheinPerChemie GmbH Untere Kanalstr. 3 79618 Rheinfelden / GERMANY Phone +49 (0) 7623 91-7227 Fax +49 (0) 7623 91-7673 Homepage www.rheinperchemie.com E-mail sales@RheinPerChemie.com
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Address enquiries to

Technical information	sales@RheinPerChemie.com
Safety Data Sheet	sdb@chemiebuero.de

1.4 Emergency telephone number


Company	+49 (0) 7623 91 7272 (24h)
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

Ox. Sol. 3: H272 May intensify fire; oxidiser.
Acute Tox. 4: H302 Harmful if swallowed.
Eye Irrit. 2: H319 Causes serious eye irritation.
STOT SE 3: H335 May cause respiratory irritation.
Skin Irrit. 2: H315 Causes skin irritation.
Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1: H317 May cause an allergic skin reaction.

2.2 Label elements

	The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).
Hazard pictograms	
Signal word	DANGER
Contains:	Disodium peroxodisulphate, CAS: 7775-27-1
Hazard statements	<p>H272 May intensify fire; oxidiser. H302 Harmful if swallowed. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H315 Causes skin irritation. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317 May cause an allergic skin reaction.</p>
Precautionary statements	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 Keep away from clothing and other combustible materials. P261 Avoid breathing dust. P264 Wash thoroughly after handling with plenty of water. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves / protective clothing / eye protection / face protection. P284 In case of inadequate ventilation wear respiratory protection. P302+P352 IF ON SKIN: Wash with plenty of water / 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. P312 Call a POISON CENTER / doctor if you feel unwell. P333+P313 If skin irritation or rash occurs: Get medical advice / attention. P362 Take off contaminated clothing. P501 Dispose of contents/container in accordance with local/national regulation.</p>

2.3 Other hazards

Environmental hazards	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Other hazards	Contains no ingredients with endocrine-disrupting properties. Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Substances

The product is a substance.

Range [%]	Substance
≥ 99.0	Disodium peroxodisulphate
	CAS: 7775-27-1
	GHS/CLP: Ox. Sol. 3: H272 - Acute Tox. 4: H302 - Eye Irrit. 2: H319 - STOT SE 3: H335 - Skin Irrit. 2: H315 - Resp. Sens. 1: H334 - Skin Sens. 1: H317

Comment on component parts Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.

3.2 Mixtures

not applicable

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information	Take off contaminated clothing and wash before reuse.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	In case of contact with skin wash off immediately with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Get medical advice. Rinse out mouth and give plenty of water to drink. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions
Cough
Nausea, vomiting.
Headache
Shortness of breath

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered. Water spray jet.
Extinguishing media that must not be used	Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Sulphur oxides (SO_x).
Has a fire-promoting effect due to release of oxygen.

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Wear full protective suit.
Cool containers at risk with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Avoid dust formation.
Use breathing apparatus if exposed to dust.
Wear suitable protective equipment. For personal protection see SECTION 8.
Remove persons to safety.

6.2 Environmental precautions

Knock down dust with water spray jet.
Retain and dispose of contaminated wash water.
Do not discharge into the drains.

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6.3 Methods and material for containment and cleaning up

Take up mechanically.
Avoid raising dust.
Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Work under hood. Do not inhale substance.
Provide vacuuming if dust raised.
Avoid the formation and deposition of dust.
Avoid contact with eyes and skin. Use personal protective equipment.
The product is not combustible.
Keep away from all sources of ignition.
Do not eat, drink, smoke or take drugs at work.
Wash hands before breaks and after work.
Use barrier skin cream.
Clean skin thoroughly after work, apply skin cream.
Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Only use containers that are approved specifically for the substance/product.
Do not store with combustible materials.
Do not store together with reducing agents.
Do not store together with acids and alkalies.
Keep container tightly closed.
Store in a dry place.
Keep container in a well-ventilated place.
Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

not applicable

DNEL

Substance
Disodium peroxodisulphate, CAS: 7775-27-1
Industrial, dermal, Long-term - systemic effects, 9.1 mg/kg bw/d (AF=100)
Industrial, inhalative, Long-term - local effects, 0.824 mg/m ³ (AF=12.5)
general population, oral, Acute - systemic effects, 1.37 mg/kg bw/d (AF=0.33)
general population, oral, Long-term - systemic effects, 0.46 mg/kg bw/d (AF=200)
general population, dermal, Long-term - systemic effects, 4.6 mg/kg bw/d (AF=200)
general population, inhalative, Long-term - local effects, 0.421 mg/m ³ (AF=25)

PNEC

Substance
Disodium peroxodisulphate, CAS: 7775-27-1
soil, 0.1 mg/kg dw
sediment (seawater), 0.203 mg/kg dw
sediment (freshwater), 2.03 mg/kg dw
sewage treatment plants (STP), 3.6 mg/L (AF=10)
seawater, 0.052 mg/L (AF=500)
freshwater, 0.518 mg/L (AF=50)

8.2 Exposure controls

Additional advice on system design	<p>Ensure adequate ventilation on workstation. Pay attention to dust limit value (ACGIH-2011: 10 mg/m³ particle inhalable; 3 mg/m³ particle respirable). Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances. Generic Exposure Scenarios only in accordance with the identified usages as stipulated in the CSR/CSA.</p>
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	<p>The details concerned are recommendations. Please contact the glove supplier for further information. > 0,11 mm, Nitrile rubber, >480 min (EN 374-1/-2/-3).</p>
Skin protection	Impermeable protective clothing.
Other	<p>Do not inhale dust. Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.</p>
Respiratory protection	<p>Respiratory protection in the case of dust formation. Short term: filter apparatus, filter P2. (DIN EN 143)</p>
Thermal hazards	No information available.
Delimitation and monitoring of the environmental exposition	Comply with applicable environmental regulations limiting discharge to air, water and soil.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid crystalline
Color	white
Odor	odourless
Odour threshold	not applicable
pH-value	ca. 4,3 (250 g/l) (20°C)
pH-value [1%]	No information available.
Boiling point [°C]	No information available.
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	The product is not combustible.
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	yes
Vapour pressure/gas pressure [kPa]	not applicable
Density [g/cm ³]	2,59 (20°C)
Relative density	No information available.
Bulk density [kg/m ³]	1200 - 1350 (20°C)
Solubility in water	556 (20°C)
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not applicable
Kinematic viscosity	not applicable
Relative vapour density	not applicable
Evaporation speed	not applicable
Melting point [°C]	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature [°C]	> 180
Particle characteristics	No information available.

9.2 Other information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.
Can cause or intensify fire.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with combustible substances.
Reactions with strong acids and alkalies.
Reactions with reducing agents, heavy metals.

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10.4 Conditions to avoid

Strong heating.
Reactions with damp air and moisture.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

Oxygen.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

Substance
Disodium peroxodisulphate, CAS: 7775-27-1
LD50, oral, Rat (female), 895 mg/kg

Acute dermal toxicity

Substance
Disodium peroxodisulphate, CAS: 7775-27-1
LD50, dermal, Rat (female), > 2000 mg/kg

Acute inhalational toxicity

Substance
Disodium peroxodisulphate, CAS: 7775-27-1
LC50, inhalative, Rat (female), > 2950 mg/m ³ /4h

Serious eye damage/irritation

Irritant
On basis of test data

Skin corrosion/irritation

Irritant
On basis of test data

Respiratory or skin sensitisation

May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
On basis of test data

Specific target organ toxicity — single exposure

May cause respiratory irritation.
On basis of test data

Specific target organ toxicity — repeated exposure

Based on the available information, the classification criteria are not fulfilled.

Substance
Disodium peroxodisulphate, CAS: 7775-27-1
NOAEL, dermal, 91 mg/kg bw/day
NOAEL, oral, 91 mg/kg bw/day
NOAEC, inhalative, 10,3 mg/m ³ /day

Mutagenicity

(IUCLID) Ames-test: negative.
Based on the available information, the classification criteria are not fulfilled.

Substance
Disodium peroxodisulphate, CAS: 7775-27-1
no adverse effect observed

Reproduction toxicity

Based on the available information, the classification criteria are not fulfilled.

Substance
Disodium peroxodisulphate, CAS: 7775-27-1
NOAEL, oral, Rat, 250 mg/kg bw/day, OECD 421, no adverse effect observed

Carcinogenicity

Based on the available information, the classification criteria are not fulfilled.

Substance
Disodium peroxodisulphate, CAS: 7775-27-1
OECD 451, no adverse effect observed

Aspiration hazard

Based on the available information, the classification criteria are not fulfilled.

General remarks

The toxicological information is based on the main components.

SECTION 12: Ecological information

12.1 Toxicity

Substance
Disodium peroxodisulphate, CAS: 7775-27-1
LC50, (96h), fish, 76.3 mg/L
EC50, (48h), Daphnia magna, 120 mg/L

12.2 Persistence and degradability

Behaviour in environment compartments

No information available.

Behaviour in sewage plant

Obtain approval of the relevant authorities before discharging into sewage treatment plants.

Biological degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with national regulations.

Product

Dispose of as hazardous waste.
For recycling, consult waste disposal centres.

Contaminated packaging

Untaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

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SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID 1505

Inland navigation (ADN) 1505

Marine transport in accordance with IMDG 1505

Air transport in accordance with IATA 1505

14.2 UN proper shipping name

Transport by land according to ADR/RID SODIUM PERSULPHATE

- Classification Code O2

- Label



- ADR LQ 5 kg

- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 3 (E)

Inland navigation (ADN) SODIUM PERSULPHATE

- Classification Code O2

- Label



Marine transport in accordance with IMDG Sodium persulphate

- EMS F-A, S-Q

- Label



- IMDG LQ 5 kg

Air transport in accordance with IATA Sodium persulphate

- Label



14.3 Transport hazard class(es)

Transport by land according to ADR/RID 5.1

Inland navigation (ADN) 5.1

Marine transport in accordance with IMDG 5.1

Air transport in accordance with IATA 5.1

14.4 Packing group

Transport by land according to ADR/RID III

Inland navigation (ADN) III

Marine transport in accordance with IMDG III

Air transport in accordance with IATA III

14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

TRANSPORT-REGULATIONS	ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2021)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011).
- Observe employment restrictions for people	Observe employment restrictions for young people. Observe employment restrictions for mothers-to-be and nursing mothers. SEVESO III (Directive 2012/18/EU), Hazard categories in accordance with Regulation (EC) No 1272/2008: P8 OXIDISING LIQUIDS AND SOLIDS
- VOC (2010/75/CE)	not applicable

15.2 Chemical safety assessment

For this substance a chemical safety assessment has been carried out. Assessment is available from the manufacturer. For more information on the measures of risk management can contact the manufacturer.

SECTION 16: Other information

16.1 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform Chemicals Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.2 Other information

Classification procedure

Ox. Sol. 3: H272 May intensify fire; oxidiser. (On basis of test data)
Acute Tox. 4: H302 Harmful if swallowed. (On basis of test data)
Eye Irrit. 2: H319 Causes serious eye irritation. (On basis of test data)
STOT SE 3: H335 May cause respiratory irritation. (On basis of test data)
Skin Irrit. 2: H315 Causes skin irritation. (On basis of test data)
Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. (On basis of test data)
Skin Sens. 1: H317 May cause an allergic skin reaction. (On basis of test data)

Modified position

SECTION 2 been added: Contains no ingredients with endocrine-disrupting properties.
SECTION 2 been added: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
SECTION 15 been added: P8 OXIDISING LIQUIDS AND SOLIDS
SECTION 15 been added: SEVESO III (Directive 2012/18/EU), Hazard categories in accordance with Regulation (EC) No 1272/2008:

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