

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumperoxodisulfat zur TOC-Analyse

Revision date: 05.01.2021

Product code: 04750

Page 2 of 12

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 soap and water.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- 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: Na₂S₂O₈
Molecular weight: 238,11 g/mol

Hazardous components

| CAS No | Chemical name | Quantity |
|-----------|--|----------|
| | EC No Index No REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | |
| 7775-27-1 | disodium peroxodisulphate | 100 % |
| | 231-892-1 01-2119495975-15-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. Limits, M-factors and ATE | |
| 7775-27-1 | 231-892-1 | disodium peroxodisulphate | 100 % |
| | | inhalation: LC50 = >= 2,95 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 1200 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

Natriumperoxodisulfat zur TOC-Analyse

Revision date: 05.01.2021

Product code: 04750

Page 3 of 12

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

Rinse immediately carefully and thoroughly with eye-bath or water.
Remove contact lenses, if present and easy to do. Continue rinsing.
Consult an ophthalmologist.

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

Cough
Allergic reactions
Irritant
Dyspnoea
Vomiting
Gastrointestinal complaints
Headache

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

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
Danger of dust explosion.
Hazardous combustion products
In case of fire may be liberated: Sulphur oxides

5.3. Advice for firefighters

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.
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.

Natriumperoxodisulfat zur TOC-Analyse

Revision date: 05.01.2021

Product code: 04750

Page 4 of 12

Remove persons to safety.
Emergency procedures
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

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.
Read label before use.

Advice on protection against fire and explosion

Keep away from combustible material.
May intensify fire; oxidiser.

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.

Natriumperoxodisulfat zur TOC-Analyse

Revision date: 05.01.2021

Product code: 04750

Page 5 of 12

Further information on storage conditions

storage temperature +15°C - +25°C

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

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/m ³ | fib/cm ³ | Category | Origin |
|-----------|--|-----|-------------------|---------------------|-----------|--------|
| 7775-27-1 | Persulphate salts, inorganic; Sodium persulphate | - | 0.1 | | TWA (8 h) | |

DNEL/DMEL values

| CAS No | Substance | Exposure route | Effect | Value |
|--------------------------|---------------------------|----------------|----------|--------------------------|
| 7775-27-1 | disodium peroxodisulphate | | | |
| Worker DNEL, long-term | | inhalation | systemic | 2,06 mg/m ³ |
| Worker DNEL, acute | | inhalation | systemic | 590 mg/m ³ |
| Worker DNEL, long-term | | inhalation | local | 2,06 mg/m ³ |
| 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, acute | | dermal | local | 2,248 mg/cm ² |
| Consumer DNEL, long-term | | inhalation | systemic | 1,03 mg/m ³ |
| Consumer DNEL, acute | | inhalation | systemic | 295 mg/m ³ |
| Consumer DNEL, long-term | | inhalation | local | 1,03 mg/m ³ |
| Consumer DNEL, acute | | inhalation | local | 295 mg/m ³ |
| Consumer DNEL, 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/cm ² |
| Consumer DNEL, acute | | dermal | local | 1,124 mg/cm ² |
| Consumer DNEL, long-term | | oral | systemic | 9,1 mg/kg bw/day |
| Consumer DNEL, acute | | oral | systemic | 30 mg/kg bw/day |

Natriumperoxodisulfat zur TOC-Analyse

Revision date: 05.01.2021

Product code: 04750

Page 6 of 12

PNEC values

| CAS No | Substance | Value |
|--|---------------------------|-------------|
| Environmental compartment | | |
| 7775-27-1 | disodium peroxodisulphate | |
| Freshwater | | 0,076 mg/l |
| Freshwater (intermittent releases) | | 0,763 mg/l |
| Marine water | | 0,011 mg/l |
| Freshwater sediment | | 0,275 mg/kg |
| Marine sediment | | 0,04 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 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):

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.

Respiratory protection

Respiratory protection necessary at: dust formation
Filtering device with filter or ventilator filtering device of type: P2

Environmental exposure controls

Do not allow to enter into surface water or drains.

Natriumperoxodisulfat zur TOC-Analyse

Revision date: 05.01.2021

Product code: 04750

Page 7 of 12

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

Changes in the physical state

Melting point/freezing point: No data available
 Boiling point or initial boiling point and boiling range: No data available
 Sublimation point: No data available
 Softening point: No data available
 Pour point: No data available
 : No data available
 Flash point: X

Flammability

Solid/liquid: No data available
 Gas: not applicable

Explosive properties

Danger of dust explosion.

Lower explosion limits: No data available
 Upper explosion limits: No data available
 Auto-ignition temperature: No data available

Self-ignition temperature

Solid: No data available
 Gas: not applicable

Decomposition temperature: ~180 °C

pH-Value (at 20 °C): 3,5 - 3,8 (100 g/l)

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

Flow time: No data available

Water solubility: 545 g/L
 (at 20 °C)

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: No data available

Vapour pressure: No data available

Vapour pressure: No data available

Density (at 20 °C): 1,2 g/cm³

Bulk density: ~1150 kg/m³

Relative vapour density: No data available

9.2. Other information

Information with regard to physical hazard classes

Sustaining combustion: No data available

Natriumperoxodisulfat zur TOC-Analyse

Revision date: 05.01.2021

Product code: 04750

Page 8 of 12

Oxidizing properties

The product is: oxidising, Oxidising.

Oxidizing solids, Category 3

Other safety characteristics

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Evaporation rate:

No data available

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Material, oxygen-rich, Oxidising

Oxidising agent

Danger of dust explosion.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Reducing agent, Combustible substance

Alcohols, Acid

Base

10.4. Conditions to avoid

Heat

Humidity

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

No data available

Further information

No data available

SECTION 11: Toxicological information

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

Toxicokinetics, metabolism and distribution

No data available

Acute toxicity

Harmful if swallowed.

Pulmonary oedema

Natriumperoxodisulfat zur TOC-Analyse

Revision date: 05.01.2021

Product code: 04750

Page 9 of 12

| CAS No | Chemical name | | | | |
|-----------|----------------------------|-------------------|---------|---------------------|--------------------|
| | Exposure route | Dose | Species | Source | Method |
| 7775-27-1 | disodium peroxodisulphate | | | | |
| | oral | LD50 1200 mg/kg | Rat | Study report (1979) | OECD Guideline 401 |
| | dermal | LD50 > 2000 mg/kg | Rat | Study report (1991) | EPA OPP 81-2 |
| | inhalation (4 h) dust/mist | LC50 >= 2,95 mg/l | Rat | Study report (1989) | EPA OPP 81-3 |

Irritation and corrosivity

Causes skin irritation.
Causes serious eye irritation.

Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (disodium peroxodisulphate)
May cause an allergic skin reaction. (disodium peroxodisulphate)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause respiratory irritation. (disodium peroxodisulphate)

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.

Specific effects in experiment on an animal

No data available

Additional information on tests

No data available

Practical experience

No data available

11.2. Information on other hazards

Other information

No data available

Further information

Cough
Allergic reactions
Irritant
Dyspnoea
Vomiting
Gastrointestinal complaints
Headache

SECTION 12: Ecological information

12.1. Toxicity

Natriumperoxodisulfat zur TOC-Analyse

Revision date: 05.01.2021

Product code: 04750

Page 10 of 12

| CAS No | Chemical name | | | | | |
|-----------|---------------------------|--------------|-----------|---------|---------------------------|---|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 7775-27-1 | disodium peroxodisulphate | | | | | |
| | 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 (1992) 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

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

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.

No data available

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Do not allow to enter into surface water or drains.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

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

Dispose of waste according to applicable legislation.

Do not mix with other wastes.

Do not empty into drains.

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 1505 |
| 14.2. UN proper shipping name: | SODIUM PERSULPHATE |
| 14.3. Transport hazard class(es): | 5.1 |
| 14.4. Packing group: | III |
| Hazard label: | 5.1 |
| Classification code: | O2 |
| Limited quantity: | 5 kg |
| Excepted quantity: | E1 |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumperoxodisulfat zur TOC-Analyse

Revision date: 05.01.2021

Product code: 04750

Page 11 of 12

Transport category: 3
Hazard No: 50
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1505
14.2. UN proper shipping name: SODIUM PERSULPHATE
14.3. Transport hazard class(es): 5.1
14.4. Packing group: III
Hazard label: 5.1
Classification code: O2
Limited quantity: 5 kg
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 1505
14.2. UN proper shipping name: SODIUM PERSULPHATE
14.3. Transport hazard class(es): 5.1
14.4. Packing group: III
Hazard label: 5.1
Special Provisions: -
Limited quantity: 5 kg
Excepted quantity: E1
EmS: F-A, S-Q

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1505
14.2. UN proper shipping name: SODIUM PERSULPHATE
14.3. Transport hazard class(es): 5.1
14.4. Packing group: III
Hazard label: 5.1
Special Provisions: A803
Limited quantity Passenger: 10 kg
Passenger LQ: Y546
Excepted quantity: E1
IATA-packing instructions - Passenger: 559
IATA-max. quantity - Passenger: 25 kg
IATA-packing instructions - Cargo: 563
IATA-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

Information according to 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).

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumperoxodisulfat zur TOC-Analyse

Revision date: 05.01.2021

Product code: 04750

Page 12 of 12

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

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,9,11,12,15.

Abbreviations and acronyms

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)

| | |
|------|--|
| 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. |