

Safety data sheet
 according to 1907/2006/EC, Article 31

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 Version number 2

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

- **1.1 Product identifier**
- **Trade name:** Sodium perborate tetrahydrate pure
- **Article number:** A3515
- **CAS Number:**
13517-20-9
- **EC number:**
239-172-9
- **Index number:**
005-018-00-2
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
Chemical for various applications
Laboratory chemical
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
AppliChem GmbH
Ottoweg 4
D-64291 Darmstadt
Tel.: +49 (0)6151 93570
msds@applichem.com
- **Further information obtainable from:** Abteilung Qualitätskontrolle / Dep. Quality Control
- **1.4 Emergency telephone number:**
+49(0)6151 93570 (während der normalen Geschäftszeiten / Inside normal business hours)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
 Ox. Sol. 2 H272 May intensify fire; oxidiser.
 Acute Tox. 3 H331 Toxic if inhaled.
 Repr. 1A H360Df May damage the unborn child. Suspected of damaging fertility.
 Eye Dam. 1 H318 Causes serious eye damage.
 Acute Tox. 4 H302 Harmful if swallowed.
 STOT SE 3 H335 May cause respiratory irritation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 T; Toxic
 Repr. Cat. 2, 3
 R61-23: May cause harm to the unborn child. Toxic by inhalation.
 Xn; Harmful
 R62-22: Possible risk of impaired fertility. Harmful if swallowed.
 Xi; Irritant
 R37-41: Irritating to respiratory system. Risk of serious damage to eyes.
 O; Oxidising
 R8: Contact with combustible material may cause fire.

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Trade name: Sodium perborate tetrahydrate pure

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· **Information concerning particular hazards for human and environment:** Not applicable.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS03 GHS05 GHS06 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**

Sodium perborate tetrahydrate pure

· **Hazard statements**

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H331 Toxic if inhaled.

H318 Causes serious eye damage.

H360Df May damage the unborn child. Suspected of damaging fertility.

H335 May cause respiratory irritation.

· **Precautionary statements**

P221 Take any precaution to avoid mixing with combustibles.

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

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P405 Store locked up.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.1 Chemical characterisation: Substances**

· **CAS No. Description**

13517-20-9 Sodium perborate tetrahydrate pure

· **Identification number(s)**

· **EC number:** 239-172-9

· **Index number:** 005-018-00-2

· **SVHC**

13517-20-9 Sodium perborate tetrahydrate pure

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Immediately rinse with water.

If skin irritation continues, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth.

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make victim drink water (maximum of 2 drinking glasses)

Call a doctor immediately.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **5.2 Special hazards arising from the substance or mixture**

Non-combustible.

oxidising

Ambient fire may liberate hazardous vapoours.

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained respiratory protective device.

· **Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Avoid formation of dust.

Do not inhale dust.

Avoid substance contact.

Ensure adequate ventilation

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Pick up mechanically.

Avoid generation of dusts.

Clean up affected area.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Any unavoidable deposit of dust must be regularly removed.

· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Keep container tightly sealed.

Open receptacle only under localised extractor facilities.

· **Recommended storage temperature:** 15-25 °C

· **Storage class:** 5.1 B

· **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
Required when dusts are generated.
Filter P2
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact gloves made of the following materials are suitable:**
Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.11 mm
Value for the permeation: Level ≥ 480 min
- **As protection from splashes gloves made of the following materials are suitable:**
Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.11 mm
Value for the permeation: Level ≥ 480 min
- **Eye protection:**



Tightly sealed goggles

- **Body protection:**
Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Solid
Colour:	White
Odour:	Odourless
Odour threshold:	Not determined.
- **pH-value at 25 °C:** 10.0-10.4

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- | | |
|---|---|
| · Change in condition
Melting point/Melting range:
Boiling point/Boiling range: | 60 °C
Undetermined. |
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | Product is not flammable. |
| · Ignition temperature: | |
| Decomposition temperature: | Not determined. |
| · Self-igniting: | Not determined. |
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Explosion limits:
Lower:
Upper: | Not determined.
Not determined. |
| · Vapour pressure: | Not applicable. |
| · Density at 20 °C:
· Relative density
· Vapour density
· Evaporation rate | 1.73 g/cm ³
Not determined.
Not applicable.
Not applicable. |
| · Solubility in / Miscibility with water at 20 °C: | 23 g/l |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity:
Dynamic:
Kinematic: | Not applicable.
Not applicable. |
| · Solvent content:
Organic solvents:
VOC (EC)
· 9.2 Other information | 0.0 %
0.00 %
No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Stable up to melting point.
- **10.3 Possibility of hazardous reactions**

Violent reactions possible with:
reducing agents
metals
metal alloys
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

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SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values relevant for classification:**

· Components	Type	Value	Species
13517-20-9 Sodium perborate tetrahydrate pure			
Oral	LD50	1200 mg/kg (rat)	
Dermal	LD50	>2000 mg/kg (rabbit)	

- **Primary irritant effect:**
- **on the skin:** Slight irritations.
- **on the eye:** Severe irritations.
- **After inhalation:** Irritations of the mucous membranes.
- **Sensitisation:** No sensitising effects known.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
Repr. 1A

SECTION 12: Ecological information

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow to enter waters, waste water, or soil.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Chemicals must be disposed of in compliance with the respective national regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:**
Disposal must be made according to official regulations.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

- | | |
|---------------------------------------|-------------------------|
| · 14.1 UN-Number | |
| · ADR, IMDG, IATA | UN1479 |
| · 14.2 UN proper shipping name | |
| · ADR, IMDG, IATA | OXIDIZING SOLID, N.O.S. |

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· **14.3 Transport hazard class(es)**

· **ADR, IMDG, IATA**



· **Class** 5.1 Oxidising substances.
· **Label** 5.1

· **14.4 Packing group**

· **ADR, IMDG, IATA** III

· **14.5 Environmental hazards:**

· **Marine pollutant:** No

· **14.6 Special precautions for user**

Warning: Oxidising substances.

· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **IMDG**

· **Limited quantities (LQ)**

5 kg

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· **UN "Model Regulation":**

UN1479, OXIDIZING SOLID, N.O.S., 5.1, III

SECTION 15: Regulatory information

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

· **National regulations:**

· **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** Abteilung Qualitätskontrolle / Dept. Quality Control

· **Contact:** Hr. / Mr. Th. Stöckle

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

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GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Ox. Sol. 2: Oxidising Solids, Hazard Category 2
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 3: Acute toxicity, Hazard Category 3
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Repr. 1A: Reproductive toxicity, Hazard Category 1A
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

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