

DATASHEET CLEANER

1. Identification of the substance

- 1.1 Trademark :- CLEANER
1.2 Description :- Sodium Perborate Trihydrate (pure)
1.3 Distributed by :- Bravilor Bonamat B.V. Pascalstraat 20
NL-1704 RD Heerhugowaard (The Netherlands)
- Tel. +31 (0)72 5751751
- Fax. +31 (0)72 5751758

2. Composition / information on ingredients

- 2.1 Description :- Sodium Perborate Trihydrate (100%)
2.2 Formula :- $\text{NaBO}_2 \cdot \text{H}_2\text{O}_2 \cdot 3\text{H}_2\text{O}$
2.3 MM :- 153.86 g / mol
2.4 CAS. No. :- 13517 - 20 - 9
2.5 EEC. No. :- 239 - 172 - 9

3. Hazards identification

- 3.1 Health hazards :- Harmful when swallowed
- Irritating to the eyes
3.2 Ecology :- No data available
3.3 Fire hazard :- Fire boosting

4. First aid measures

- 4.1 After skin contact :- Wash with plenty of water immediately
- Remove contaminated clothing
4.2 After contact with the eyes :- Rinse with plenty of water with the eyelids held wide open
- Summon the help of an ophthalmologist
4.3 After inhalation :- Let the victim breathe fresh air Rinse the mouth with plenty of water
4.4 After swallowing :- Rinse the mouth with plenty of water
- Make the victim drink plenty of water
- Induce vomiting
- Summon medical help
- Show the package to the doctor / in the hospital

5. Fire-fighting measures

- 5.1 Suitable extinguishing media :- CO_2 , foam, water
5.2 Special risks :- Avoid contact with organic materials
- Fire boosting, keep away from combustible materials
5.3 Special protecting clothing :- Do not stay in the danger zone without suitable chemical protection
clothing and self contained breathing apparatus
5.4 Other information :- Non combustible
- Prevent fire-fighting water from entering surface water or groundwater

6. Accidental release measures

- 6.1 Person related precautions :- Avoid direct contact with the substance
- Avoid generation of dust
- Do not inhale dust
6.2 Procedures for cleaning / absorption :- Take up dry
- Forward for disposal
- Clean up affected area
- After handling the material clean contaminated clothing and equipment
6.3 Environmental Protection measures :- Do not allow to enter the sewerage system

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7. Handling and storage

- 7.1 Handling :- No further requirements
- 7.2 Storage :- Store in a dry place
- Store in a tightly closed container
- No restrictions for the storage temperature known
- 7.3 Keep away from :- Heat sources - open fire - flammable materials

8. Personal Protection / exposure protection

8.1 Personal protective equipment:

- Respiratory protection :- Required when dusts are generated
- Eye protection :- Required
- Hand protection :- Required

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substance handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

- 8.2 Industrial hygiene :- Change contaminated clothing
- Application of skin-protective barrier cream is recommended
- Wash hands after working with the substance

9. Physical and chemical properties

- Form :- Solid
- Colour :- White
- Odour :- Odourless
- Melting temperature :- ~ 60° C (decomposition)
- Boiling temperature :- Not available
- Density :- 1730 kg/m³
- Bulk density :- ~ 720 kg/m³
- Solubility in water :- ~ 23 g/l (20° C)
- pH :- 10,1 - 10,4 (at 20° C and 20 g/l_{water})

10. Stability and reactivity

- 10.1 Conditions to be avoided :- No information available
- 10.2 Substances to be avoided :- Organic combustible substances
- Metals (i.a. alkali metals)
- metal catalyst
- 10.3 Hazardous decomposition products :- No information available

11. Toxicological information

- 11.1 Acute Toxicity :- LD50 (Oral rat): 2243 mg/kg
- 11.2 Specific symptoms with animal tests :- Eye irritation test: irritant effect
- Skin irritation test: light irritant effect
- 11.3 Further toxicological information :- After eye contact: irritating effect
- After swallowing: irritation of the mucous membrane
- For Boron-compounds in general the following applies: after swallowing nausea and vomiting, irritation, spasms, in general CNS-disorders, heart and circulatory disorders can be expected
- 11.4 Further information :- Further hazardous properties cannot be excluded. The product should be handled and used with due care and attention

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12. Ecological information

- 12.1 Ecotoxic effects : No special data available
- 12.2 Biological effects :- Fish toxicity: *Leuciscus Idus* LC50: 175 mg/l/48h
- Daphniae toxicity: *Daphnia Magna*: 133 - 226 mg/l/48h
- 12.3 Further ecological data :- Do not allow to enter waters, waste water, or soil.
- When handled and used competently no ecological problems are to be expected

13. Disposal considerations

- 13.1 Product :- There are no uniform EC-regulations for the disposal of chemicals or residues. Chemical residues in general count as special waste, the disposal of which is regulated in the EC member states through harmonised laws and regulations. We recommend that the authorities in charge or an approved disposal company is contacted to advice on how to dispose of this special waste.
- 13.2 Packaging :- Handle contaminated packaging in the same way as the substance itself
- Disposal in compliance with the official national regulations
- If not specified differently, non contaminated packaging may be treated like household waste or re-cycled

14. Transport information

- 14.1 Transport over land ADR/RID and GGVS/GGVE (Germany)
- Classification :- 5.1 Number and letter :- 27b
- Marking :- 1479 - ENTZUENDEND (OXIDIEREND) WIRKENDER FESTER STOFF, N.A.G. (NATRIUMPERBORAT-TRIHYDRATE)
{ OXIDISING SOLID, N.O.S. (SODIUM PERBORATE TRIHYDRATE)}
- 14.2 Transport by inland vessel ADN/ADNR
No data available
- 14.3 Transport over sea IMDG/GGVS (sea)
- IMDG/GGVS - class :- 5.1 UN - number :- 1479
- EMS :- 5.1 - 1 MFAG :- 760, 4.3
- Correct technical marking :- OXIDISING SOLID, N.O.S. (SODIUM PERBORATE TRIHYDRATE)
Packaging group :- II
- 14.4 Transport by air ICAO-TI en IATA-DGR
- ICAO/IATA - class :- 5.1 UN- / ID- number :- 1479
- Correct technical name :- OXIDISING SOLID, N.O.S. (SODIUM PERBORATE TRIHYDRATE)
Packaging group :- II
- 14.5 The transport regulations are cited according to international regulations and in the form applicable in Germany (GGVS/GGVE). Possible national deviations in other countries are not considered.

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15. Regulatory information

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|------|---------------|-----|-----------|---|--|
| 15.1 | Hazard symbol | : - | Xi | - | Irritating |
| 15.2 | R-phrases | : - | 22 | - | Harmful if swallowed |
| | | - | 36/38 | - | Irritating to eyes and skin |
| 15.3 | S-phrases | : - | (2) | - | (Keep out of reach of children) |
| | | - | 26 | - | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice |
| 15.4 | NOTE | : | | | |
| 15.5 | EEC LIST | : - | | | Labelling on basis of available information |

16. Additional information

Date of issue : - 05 February 2002

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product. The receiver and the users of the product are responsible for a proper use in conformity with the existing legislation and regulations.