

1 Identification of the substance/mixture and the company

Product identifier	Calcheck
Use of substance	Reagent for water analysis
Supplier	WAPOTEC GmbH Carola-Blome-Str. 7 A-5020 Salzburg Tel: +43 662 434342-0 Fax: +43 662 434342-3
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2 Hazards identification

Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

Repr. 1B H360FD May damage fertility. May damage the unborn child.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



T; Toxic

R60-61: May impair fertility. May cause harm to the unborn child.

Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms GHS08

Signal word Danger

Hazard-determining components of labelling: disodium tetraborate, anhydrous, boric acid

Hazard statements

H360FD May damage fertility. May damage the unborn child. Restricted to professional users.

⦿ **Precautionary statements**

- P281 Use personal protective equipment as required.
 P201 Obtain special instructions before use.
 P201 Do not handle until all safety precautions have been read and understood.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P405 Store locked up
 P501 Dispose of contents/container in accordance with local/regional/national/international regulation.



3 Composition/information on ingredients

⦿ **Chemical characterization: Mixture**

Description: Mixture of organic and inorganic compounds

⦿ **Dangerous components:**

CAS: 1330-43-4 disodium tetraborate, anhydrous ☠ T Repr. Cat. 2 R60-61 10-20%
 EINECS: 215-540-4 ⚠ Repr. 1B, H360FD
 Index number: 005-011-00-4

CAS: 10043-35-3 boric acid ☠ T Repr. Cat. 2 R60-61 10-20%
 EINECS: 233-139-2 ⚠ Repr. 1B, H360FD
 Index number: 005-007-00-2

⦿ **REACH – Pre-registered substances** All components are REACH pre-registered.

⦿ **SVHC**

1330-43-4 disodium tetraborate, anhydrous
 10043-35-3 boric acid

⦿ **Additional information** For the wording of the listed risk phrases refer to section 16.



4 First-aid measures

⦿ **Description of first aid measures**

- ⦿ **General information** Instantly remove any clothing soiled by the product.
- ⦿ **After inhalation** Supply fresh air. Seek medical treatment in case of complaints.
- ⦿ **After skin contact** Instantly rinse with water. Seek medical treatment.
- ⦿ **After eye contact** Rinse opened eye for several minutes (at least 10 min) under running water. Call a doctor immediately.
- ⦿ **After swallowing** Rinse out mouth and then drink 1-2 glasses of water. Call a doctor immediately.
- ⦿ **Most important symptoms and effects, both acute and delayed:** irritations
- ⦿ **After absorption:** sickness, vomiting, diarrhea. **After swallowing of large amounts:** drop in temperature, ataxia (impaired locomotor coordination), fatigue, CNS disorders, cardiovascular disorders, cramps.



5 Fire-fighting measures

- ⦿ **Extinguishing media**
- ⦿ **Suitable extinguishing agents** Use fire fighting measure that suit the environment.
- ⦿ **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- ⦿ **Advice for firefighters**
- ⦿ **Protective equipment:**
Wear self-contained breathing apparatus.
Wear full protective suit.
- ⦿ **Additional information**
Ambient fire may liberate hazardous vapours.
Collect contaminated fire fighting water separately. It must not enter drains.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- ⦿ **Personal precautions, protective equipment and emergency procedures:** Use breathing protection against the effects of fumes/dust/aerosol. Avoid causing dust.
- ⦿ **Environmental precautions:** Do not allow product to reach sewage system or water bodies.
- ⦿ **Methods and material for containment and cleaning up:**
Collect mechanically. Ensure adequate ventilation. Dispose of contaminated material as waste according to item 13.
- ⦿ **Reference to other sections:** No dangerous materials are released.

7 Handling and storage

- ⦿ **Handling**
- ⦿ **Precautions for safe handling** Open and handle container with care. Prevent formation of dust. Ensure good ventilation/exhaustion at the workplace.
- ⦿ **Information about protection against explosions and fires:** The product is not flammable.
Protect against electrostatic charges. Dust can combine with air to form an explosive mixture. Fumes can combine with air to form an explosive mixture. Keep ignition sources away – Do not smoke.
- ⦿ **Conditions for safe storage, including any incompatibilities:**
- ⦿ **Storage**
- ⦿ **Requirements to be met by storerooms and containers:** Store in cool location.
- ⦿ **Information about storage in one common storage facility:** Store away from solvents.
- ⦿ **Further information about storage conditions:** Protect from heat and direct sunlight. Store

under dry conditions. Protect from humidity and keep away from water. Protect from the effects of light. Store in a locked cabinet or with access restricted to technical experts or their assistants.

- ⦿ **Recommended storage temperature:** 20°C +/-5°C
- ⦿ **Storage class** 6.1B

8 Exposure controls and personal protection

- ⦿ **Additional information about design of technical systems:** No further data; see item 7.
- ⦿ **Control parameters**
- ⦿ **Components with limit values that require monitoring at the workplace:**
- ⦿ **1330-43-4 disodium tetraborate, anhydrous (10-20%)**
WEL (Great Britain) – Long-term value: 1 mg/m³
- ⦿ **Additional information:** The lists that were valid during the compilation were used as basis.
- ⦿ **Exposure controls**
- ⦿ **Personal protective equipment**
- ⦿ **General protective and hygienic measures** Wash hands during breaks and at the end of the work. Do not eat, drink or smoke while working.
- ⦿ **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- ⦿ **Recommended filter device for short term use:** Filter P3
- ⦿ **Protection of hands:** Preventive skin protection by use of skin-protecting agents is recommended.
- ⦿ **Material of gloves** nitrile rubber, NBR. Recommended thickness of the material: ≥ 0.11 mm
- ⦿ **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. Value for the permeation: Level ≥ 1 (>10 min)
- ⦿ **Eye protection:** Use against the effects of fumes / dust. Safety glasses
- ⦿ **Body protection:** Protective work clothing

9 Physical and chemical properties

Information basic physical and chemical properties

Appearance:

- | | |
|--|----------------|
| ⦿ Form: | Tablets |
| ⦿ Colour: | Pink |
| ⦿ Odour: | Odourless |
| ⦿ pH-value (9g/l) at 20°C | 8.5 |
| ⦿ Melting point/
Melting range: | Not determined |

- ⦿ **Boiling point / Boiling range:** 300°C
- ⦿ **Flash point:** Not applicable
- ⦿ **Danger of explosion:** Product is not explosive.
- ⦿ **Density at 20°C** Not determined.
- ⦿ **Solubility in / Miscibility with Water at 20°C:** Soluble
- ⦿ **Solvent content:**
 Organic solvents: 0.0 %
- ⦿ **Solids content:** 100 %



10 Stability and reactivity

- ⦿ **Reactivity**
- ⦿ **Chemical stability**
- ⦿ **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- ⦿ **Possibility of hazardous reactions:** with nitric acid, acetic anhydride -> Explosive
Strong exothermic reaction with acids. Reacts with halogenated compounds. The product is not capable of dust explosion in the form supplied; enrichment with fine dust causes risk of dust explosion
- ⦿ **Incompatible materials:** alkalis, reducing agents
- ⦿ **Hazardous decomposition products:** See chapter 5



11 Toxicological information

Information on toxicological effects

Acute toxicity: Quantitative data on the toxicity of the preparation are not available.

The following statements refer to the individual components.

LD/LC50 values that are relevant for classification:

1330-43-4 disodium tetraborate, anhydrous

Oral/LD50/709 mg/kg (human)

1200 mg/kg (rat)

(RTECS) – Merck

10043-35-3 boric acid

Oral/LD/2660 mg/2660 mg/kg (rat)

Dermal/LD50/>2000 mg/kg (rat)

(RTECS)

LD₅₀/1500 mg/kg (child)

(MERCK)

NOAEL/9.6 B mg/kg (rat)

(NTP)

Primary irritant effect:

- ⦿ **on the skin:** slight irritations possible

- ⦿ **on the eye:** Irritant effect.
- ⦿ **Sensitization:** No sensitizing effect known.
- ⦿ **Subacute to chronic toxicity:**
Cas-No. 10043-35-3; MERCK: Sensitisation test (guinea pig): negative (OECD 406)
- ⦿ **Experience with humans:** Can cause kidney damages.
- ⦿ **Additional toxicological information:** Toxic, Absorption: gastro-intestinal tract, mucous membranes
- ⦿ **Mutagenicity:** Boric acid, Mutagenicity (mammal cell test); chromosome aberration negative (NTP)
- ⦿ **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
Boric acid:
Bacterial mutagenicity: Ames test – negative (IUCLID)
Mutagenicity (mammal cell test): chromosome aberration negative (NTP)
Evaluation for carcinogenicity: negative in animals (NTP)
May cause harm to the unborn child. Pregnant women should not be exposed to the product.
Product is suspected to cause injury to foetus.

12 Ecological information

⦿ Toxicity

⦿ Aquatic toxicity:

⦿ 1330-43-4 disodium tetraborate, anhydrous

LC50	807 mg/l (fish)
LC50	1085-1402 mg/l/48h (Daphnia magna)
	IUCLID)
	340mg/l/96h (fish)
	(IUCLID)

⦿ 10043-35-3 boric acid

EC50	133 mg/l/48h (Daphnia magna)
	(ECOTOX)
LC50	50-100mg/l/96h (oncorhynchus mykiss)
	(ECOTOX)

⦿ Persistence and degradability

- ⦿ **Other information:** Quantitative data on the ecological effect of this product are not available. The following statements refer to the individual components.

- ⦿ **Behaviour in environmental systems: 10043-35-3 boric acid** log P(o/w) /0.76 (25°C (.)

⦿ Ecotoxicological effects:

Algae toxicity:

IC50/158 mg/l/96h (Desmodesmus subspicatus)
(IUCLID)

Additional ecological information:

General notes: Water hazard class 1 (German Regulation) (Self-assessment acc VwVWS Annex 4): slightly hazardous for water. Do not allow undiluted product to reach ground water, water bodies or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralized.

vPvB assessments: no data available

13 Disposal considerations

Waste treatment methods

Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to disposers of hazardous waste.

European waste catalogue: 16 05 06* – laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Recommended cleaning agent: Water, if necessary with cleaning agent.

14 Transport information

Land transport ADR/RID (cross border)

ADR/RID-GGVSE class: ---

Maritime transport IMDG:

IMDG Class: ---

Marine pollutant: No

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: ---

Un "Model Regulation": ---

Special precautions for user Not applicable

Transport/Additional Information: Not dangerous according to the above specifications.

15 Regulatory information

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

National regulations

Information about limitation of use: Observe employment restrictions for pregnant and nursing mothers according to the 'mother protection guideline' (92/85/EEC)

Employment restrictions concerning young persons must be observed.

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

10043-35-3 boric acid, 1330-43-4 disodium tetraborate, anhydrous

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

16 Other information

The information provided on this SDS is correct to the best of our knowledge and information, but not to be considered as warranty or quality specification nor creates contractual relationship. The information given is designed only as a guidance for safe handling. The categorisation according to Dangerous Preparations Directive 1999/45/EC resp. regulation CLP (EC)1272/2008 is based on the classification of the single component according to Annex VI of regulation CLP (EC)1272/2008 as well as on manufacturer's data completed by hazardous material database.

 Relevant phrases

H360FD	May damage fertility. May damage the unborn child.
R60	May impair fertility.
R61	May cause harm to the unborn child

 Edition Number 1

 Translated by WAPOTEC GmbH

 Short cut ---

