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Section 1 Identification of the substance/mixture and the company


- 1.1 Product identifier **Calcheck**
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Use of substance Reagent for water analysis
- 1.3 Supplier WAPOTEC GmbH
Franz-Sauer-Strasse 44
A-5020 Salzburg
Tel: +43 662 434342-0
Fax: +43 662 434342-3
- Contact Mr. G. Weiss
Email: office@wapotec.at
- 1.4 Emergency phone +43 662 43 43 42-0
Office hours:
MO - TH: 8.00 - 16.00
FR: 8.00 - 12.00
- Toxicity information centre Vienna:**
Phone: +43 1 406 43 43, available 0-24h



Section 2 Hazards identification

- 2.1 Hazard classification of substance or mixture
-  Classification according to Directive (EC) N° 1272/2008
Repr. 1B H360FD May damage fertility. May damage the unborn child.

- 2.2 Label elements


 Classification according to Directive (EC) 1272/2008

The product is classified and labeled according to the CLP regulation.
Hazard pictograms



GHS08 health hazard

Signal word: Danger

 Hazard-determining components of labelling

Boric acid
Disodium tetraborate, anhydrous

☉ Hazard statements

H360FD May damage fertility. May damage the unborn child.

☉ Precautionary statements

P201 Obtain special instructions before use.

P280 Wear protective gloves/protective clothing/eye protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Apply contents/container in accordance with local/ regional/ national/ International regulations.

☉ Additional information

Restricted to professional users.

2.3 Other hazards

No further relevant information available.

Section 3 Composition/information on ingredients

3.2 Mixtures

☉ Chemical characteristics

Mixture of organic and inorganic compounds

☉ Dangerous ingredients

Name	CAS # / EC # / Index # / Regulation #.	Conc. %	Classification according to	
			Regulation (EC) 1272/2008*	
disodium tetraborate, anhydrous	1330-43-4 / 215-540-4 / 005-011-00-4 / 01-2119490790-32-XXXX	10-20	Repr. 1B	H360FD
boric acid	10043-35-3 / 233-139-2 / 005-007-00-2 / 01-2119486683-25-XXXX	10-20	Repr. 1B	H360FD
SVHC				
CAS: 10043-35-3	boric acid			
CAS: 1330-43-4	disodium tetraborate, anhydrous			

* Additional information: for the wording of the listed hazard phrases refer to section 16.

Section 4 First-aid measures

- 4.1 Description of first aid measures
- ☉ General information

Instantly remove any clothing soiled by the product.
 - ☉ After inhalation

Supply fresh air.
Seek medical treatment.
 - ☉ After skin contact

Instantly wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
 - ☉ After eye contact

Rinse opened eye for several minutes (at least 15 min) under running.
Seek immediate medical advice.
 - ☉ After swallowing

Rinse out mouth and then drink 1-2 glasses of water.
Seek medical treatment.
- 4.2 ☉ Most important symptoms and effects, both acute and delayed
- Sickness
Vomiting
Irritations
After absorption:
CNS (central nervous systems) disorders
Cardiovascular disorders
Cramps
- 4.3 Indications of any immediate medical attention or special treatment needed.
- No further relevant information available.



Section 5 **Fire-fighting measures**

- 5.1 Extinguishing media
- ☉ Suitable extinguishing media
- Use fire fighting measure that suit the environment.
- 5.2 ☉ Special hazards arising from the substance or mixture
- The product is not combustible.
Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for fire-fighters
- ☉ Protective equipment
- Wear self-contained breathing apparatus.
Wear full protective suit.
- ☉ Additional information
- Collect contaminated firefighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Ambient fire may liberate hazardous vapors.

Section 6 **Accidental release of material**

- 6.1 Personal precautions, protective equipment and emergency procedures.
- ☉ Advice for non-emergency personnel
- Wear protective equipment. Keep unprotected persons away.
Avoid substance contact.
Ensure adequate ventilation.
- ☉ Advice for emergency responders
- Protective equipment: see section 8.
- 6.2 Environmental precautions
- Do not allow product to reach sewage system or water bodies.
- 6.3 Methods and material for containment and cleaning up.
- Ensure adequate ventilation.
Collect mechanically.
Dispose of contaminated material as waste according to section 13.
- 6.4 Reference to other sections
- See section 8 for information on personal protection equipment.
See section 13 for information on disposal.

Section 7 **Handling and storage**

- 7.1 Precautions for safe handling
- ☉ Advice on safe handling
- Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
Open and handle container with care.
- ☉ Hygiene measures
- Do not get in eyes, on skin, or on clothing.
Take off immediately all contaminated clothing.
Store protective clothing separately.
Wash hands during breaks and at the end of the work.
Do not eat, drink or smoke when using this product.
- 7.2 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

Not required.

Further information on storage conditions

Store in a locked cabinet or with access restricted to technical experts or their assistants.

Protect from heat and direct sunlight.

Protect from the effects of light.

Store under dry conditions.

Protect from humidity and keep away from water.

Recommended storage temperature

20° C +/- 5° C.

7.3

Specific end uses

No further information available.

Section 8

Exposure controls and personal protection

8.1

Control parameters

Components with limit values that require monitoring at the workplace

CAS: 1330-43-4 disodium tetraborate, anhydrous (10-20%)	
WEL (Great Britain)	Long-term value: 1 mg/m ³

DNELs

Derived No Effect Level (DNEL)

CAS: 10043-35-3 boric acid (10-20%)		
Oral	DNEL	0.98 mg/kg (Consumer/ acute/ systemic effects)
		0.98 mg/kg (Consumer/ long-term/ systemic effects)
Dermal	DNEL	392 mg/kg (Worker/ long-term/ systemic effects)
		196 mg/kg (Consumer/ long-term/ systemic effects)
Inhalative	DNEL	8.3 mg/m ³ (Worker/ long-term/ systemic effects)
		4.15 (Consumer/ long-term/ systemic effects)

Recommended monitoring procedures

Methods for measurement of the workplace atmosphere have to correspond to the requirements of normal DIN EN 482 and DIN EN 689.

PNECs

Predicted No Effect Concentration (PNEC)

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CAS: 10043-35-3 Boric acid	
PNEC	10 mg/l (Sewage treatment plant) 2.02 mg/l (Marine water) 13.7 mg/l (Aquatic intermittent release) 2.02 mg/l (fresh water) 5.4 mg/kg Soil

 Additional information

The lists that were valid during the compilation were used as basis.

8.2 Exposure controls

 Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.

 Personal protective equipment

 Breathing equipment

Use breathing protection against the effects of fumes/dust/aerosol.

Recommended filter device for short term use: Filter P3

 Hand protection

Protective gloves.

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

Glove material:

Nitrile rubber, NBR

Recommended material thickness: $\geq 0,11$ mm

Penetration time of glove material:

Permeation value: Level = 1 (< 10 min)


The exact penetration time is to be obtained from the glove manufacturer and must be observed.

 Eye protection

Safety glasses.

 Personal protection

Protective work clothing.

 Limitation and supervision of exposure into the environment

Avoid release to the environment.

9.1	Information on basic physical and chemical properties.	
	Appearance	Tablets
	Colour	Pink
	Odour	Odourless
	Odor threshold	Not applicable
	pH-value (9g/l) at 20°C	8.5
	Melting point/ Freezing point	Not determined
	Initial boiling point / Boiling range	Not determined
	Flash point	Not determined
	Flammability (solid, gas)	Not determined
	Decomposition temperature	Not determined
	Auto ignition temperature	Product is not self-igniting
	Explosive properties	Product is not explosive
	Flammability or explosive limits:	
	Lower:	Not applicable
	Upper:	Not applicable
	Oxidising properties	None
	Vapour pressure	Not applicable
	Density	Not determined
	Relative density	Not determined
	Vapour density	Not applicable
	Evaporation rate	Not applicable
	Solubility(ies) in water	Soluble
	Partition coefficient: n-octanol-water	Not applicable
	Viscosity	Not applicable
	Solvent content	
	Organic solvents	0 %
	Solids content	100.0 %
9.2.	Other information	No further relevant information available.

Section 10 Stability and reactivity

10.1	Reactivity
	See section 10.3.
10.2	Chemical stability
	Stable at ambient temperature (room temperature).
10.3	Possibility of hazardous reactions

Reacts with acids, alkalis and oxidizing agents.
 → forms heat.

10.4 Conditions to avoid

To avoid thermal decomposition do not overheat.

10.5  Incompatible materials

No further relevant information available.

10.6  Hazardous decomposition products

See section 5.

Section 11 Toxicological information

11.1 Information on toxicological effects

 Acute toxicity

Based on available data the classification criteria are not met.

 LD/LC₅₀ values that are relevant for classification

10043-35-3 Boric acid		
Oral	LD50	2660 mg/kg (rat) (OECD 401 (GESTIS, ECHA registrant))
Dermal	LD50	> 2000 mg/kg (rat) (ECHA, registrant: no deaths occurred)
	LD ₀	1500 mg/kg (child) (MERCK)
Inhalative	LC50	> 2.03 mg/l/4h (rat) (OECD 403, aerosol) (ECHA, registrant: no deaths occurred)
	NOAEL	9.6 B mg/kg (rat) (NTP)

 Primary irritant effect

 Skin corrosion/ irritation

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


 Serious eye damage/ irritation

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

 Information on components

CAS: 10043-35-3 boric acid

Irritation of skin	OECD 404	(rabbit: no irritation) Registrant, ECHA)
Irritation of eyes	OECD 405	(rabbit: slight irritation) (IUCRID)

 Respiratory or skin sensitization

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

Information on components

CAS-No. 10043-35-3; boric acid

Sensitisation	OECD 406	(guinea pig: negative)
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CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

The following statements refer to the mixture:

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

May damage fertility. May damage the unborn child.

STOT (specific target organ toxicity) – single exposure

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

STOT (specific target organ toxicity) – repeated exposure

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

Aspiration hazard

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

Information on components

OECD 414: Teratogenicity testing

OECD 473: Mutagenicity testing

OECD 471, 474, 476, 487 Germ cell mutagenicity testing

CAS-No. 10043-35-3; boric acid

OECD 471	(negative) (Bacterial Reverse mutation test – Ames test)
OECD 476	(negative) (In Vitro Mammalian Cell Gene Mutation Test)
	(mouse lymphoma test)
OECD 414	(negative) (oral, rat)
	(ECHA, registrant: no evidence of developmental toxicity up to 55 mg/kg bw. At 76 mg/kg bw there was reduced fetal bodyweight, short and wavy ribs, and these effects disappeared during the postnatal period.)
OECD 474	(negative) (in vivo, mice)

Additional toxicological information

CAS 1330-43-4 (disodium tetraborate, anhydrous):

Absorption through gastro-intestinal tract, mucous membranes.

Experience with humans

CAS 10043-35-3 /1330-43-4:

Can cause kidney damages.

Section 12 Ecological information

12.1 Toxicity

Acquatic toxicity

CAS: 10043-35-3 boric acid	
EC ₅₀	133 mg/l/48h (<i>Daphnia magna</i>) (ECOTOX)
LC ₅₀	50-100 mg/l/96h (rainbow trout) (ECOTOX)
CAS: 1330-43-4 disodium tetraborate, anhydrous	
LC ₅₀	1085-1402 mg/l/48h (daphnia magna) (IUCLID)
IC ₅₀	158 mg/l/96 h (<i>Desmodemus subspicatus</i>) (IUCLID)
LC ₅₀	340 mg/l/96 h (fish) (IUCLID)

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

Pow = n-octanol/water partition coefficient

log Pow < 1 = Does not accumulate in organisms.

CAS: 10043-35-3 boric acid	
Log Pow	-1.09 (.) (OECD 107, 22 °C) (MERCK)

12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT- and vPvB assessment

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XII of Regulation (EC) No. 1907/2006.

12.6 Other adverse effect

Avoid transfer to the environment.

Water hazard

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralized.

Section 13 Disposal considerations

13.1 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

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.



Section 14 **Transport information**

- 14.1 UN-Number
ADR, RID, AND, IMDG, IATA: Void.
- 14.2 Proper UN-shipping name
ADR, RID, AND, IMDG, IATA: Void.
- 14.3 Transport hazard class
ADR, RID, AND, IMDG, IATA
Class: Void.
- 14.4 Packaging group
ADR, RID, AND, IMDG, IATA: Void.
- 14.5 Environmental hazards
Marine pollutant: Void.
- 14.6 Special precautions for user
Not applicable.
- 14.7 Transport in bulk according to Annex II of MARPOL agreement and according to IBC-Code
Not applicable.

 Transport/Additional information

Not dangerous according to the above specifications.



Section 15 **Regulatory information**

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

 Regulation (EC) No 1005/2009 on substances that deplete the ozone layer

None of the ingredients is listed.

- ☉ Regulation (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 30
- ☉ 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.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

Section 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.

- ☉ Relevant H-phrases

H360FD May damage fertility. May damage the unborn child.

- ☉ Training hints

Provide adequate information, instructions and training for operators.

- ☉ Edition Replaces previous versions

- ☉ Written by WAPOTEC GmbH

- ☉ Short cuts PBT persistent, bio-accumulative, toxic
vPvB high persistent, high bio-accumulative
ECHA European Chemicals Agency (<http://www.echa.eu>)