

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 30.03.2020

Version number 2

Revision: 30.03.2020

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



- **1.1 Product identifier**
 - Trade name: **Pufferlösung nach Thiel pH 4,0**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against:**
 - **Product category:** PC21 Laboratory chemicals
 - **Process category:** PROC15 Use as laboratory reagent
 - **Application of the substance / the preparation:** Water analysis
- **1.3 Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
Xylem Analytics Germany GmbH
Sensortechnik Meinsberg
Meinsberg, Kurt-Schwabe-Straße 6
D-04736 Waldheim
Germany
Tel. +49 34327 623-0
 - **Further information obtainable from:** Email: info@meinsberg.de
- **1.4 Emergency telephone number:** Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
 - **Classification according to Regulation (EC) No 1272/2008:** The product is not classified, according to the CLP regulation.
- **2.2 Label elements:**
 - **Labelling according to Regulation (EC) No 1272/2008:** Void
 - **Hazard pictograms:** Void
 - **Signal word:** Void
 - **Hazard statements:** Void
 - **Additional information:**
EUH210 Safety data sheet available on request.
- **2.3 Other hazards** No further relevant information available.

SECTION 3: Composition/information on ingredients

- **3.2 Mixture**
 - **Description:** Aqueous solution

· Dangerous components:			
CAS: 10043-35-3 EINECS: 233-139-2 Index number: 005-007-00-2	boric acid	 Repr. 1B, H360FD	1 – < 5%
CAS: 1303-96-4 EINECS: 215-540-4 Index number: 005-011-01-1	Disodium tetraborate, decahydrate	 Repr. 1B, H360FD	0.1 – < 1%

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· SVHC	
10043-35-3	boric acid
1303-96-4	Disodium tetraborate, decahydrate

· **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**
 - **After inhalation:** Supply fresh air.
 - **After skin contact:** Rinse skin with water [or shower].
 - **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
 - **After swallowing:** If symptoms persist consult doctor.
- **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:** The product is not flammable. Extinguishing agent to suit environment.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
 - **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
No special measurements required when handled properly.
- **6.2 Environmental precautions:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Wash off residuals with water.
- **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** No special precautions are necessary if used correctly.
 - **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
 - **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.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

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· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

Avoid contact with the eyes and skin.

Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and at the end of work.

· **Respiratory protection:** Not required.

· **Protection of hands:** Protective gloves recommended for frequent or long-term skin contact.

· **Material of gloves:** Nitrile rubber, NBR

· **Eye protection:** Safety glasses

· Limitation and supervision of exposure into the environment

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Fluid
· Colour:	Colourless
· Odour:	Odourless

· **pH-value at 20 °C:** 4

· Change in condition

· **Melting point/freezing point:** ca. 0 °C

· **Initial boiling point and boiling range:** ca. 100 °C

· **Flash point:** Not applicable.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Vapour pressure:** Not determined.

· **Density at 20 °C:** 1.02 g/cm³

· Solubility in / Miscibility with

· **water:** Fully miscible.

· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

· 10.2 Chemical stability

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **10.3 Possibility of hazardous reactions** No dangerous reactions known.

· **10.4 Conditions to avoid** No further relevant information available.

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- **10.5 Incompatible materials:** No further relevant information available.

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 relevant for classification:

10043-35-3 boric acid		
Oral	LD50	2660 mg/kg (Rat) (RTECS)
Dermal	LD50	> 2000 mg/kg (Rat) (IUCLID)
1303-96-4 Disodium tetraborate, decahydrate		
Oral	LD50	2660 mg/kg (Rat) (RTECS)
Dermal	LD50	> 2000 mg/kg (Rat) (IUCLID)

· 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.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
 - **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** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **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.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

10043-35-3 boric acid	
EC50	133 mg/l, 48 h (Daphnia magna) (ECOTOX Database)
LC50	50 – 100 mg/l, 96 h (Oncorhynchus mykiss) (ECOTOX Database)
1303-96-4 Disodium tetraborate, decahydrate	
EC50	1085 – 1402 mg/l, 48 h (Daphnia magna) (IUCLID)
LC50	630 mg/l, 72 h (Carassius auratus) (IUCLID)

- **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.
- **12.5 Results of PBT and vPvB assessment** Not applicable.
- **12.6 Other adverse effects**

· General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

· Uncleaned packaging:

· Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning. Packagings that may not be cleansed are to be disposed of in the same manner as the product.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN-Number	
· ADR/RID, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name	
· ADR/RID, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es)	
· ADR/RID, ADN, IMDG, IATA	
· Class	Void
· 14.4 Packing group	
· ADR/RID, IMDG, IATA	Void
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· UN "Model Regulation":	Void

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

10043-35-3	boric acid
1303-96-4	Disodium tetraborate, decahydrate

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

SECTION 16: Other information

· Relevant phrases

H360FD May damage fertility. May damage the unborn child.

· 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

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IATA: International Air Transport Association
GHS: Globally Harmonised 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 (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Repr. 1B: Reproductive toxicity – Category 1B

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