

Date of issue: 20.03.2009

Version: 0021

n.ap. = not applicable

n.av. = not available

SI Analytics

1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or preparation

Trade name **pH 9,18 (25°C) Pufferlösung**
 Product number **scho0025**
 Substance code **L 918, L 9184, L 4797, L 4798, L 4799, L 4898, L 4899**

1.2 Use of the substance/preparation

The product is used as a laboratory chemical.

1.3 Company/undertaking identification

Address: SI Analytics GmbH
 Geb. G12
 Hattenbergstrasse 10
 D-55122 Mainz
 Information: Telephone: int+49-(0)6131-66-5051 or -5116
 Fax: int+49-(0)6131-66-5001

e-mail-address of the competent person responsible for this Safety Data Sheet:
 urban-finking.gefstoff@t-online.de

1.4 Emergency telephone

Beratungsstelle für Vergiftungserscheinungen und Embryonaltoxikologie, Berlin
 Telephone: int+49-(0)30 - 19240

2. Hazards identification

2.1 Hazards identification

The product is not dangerous within the meaning of the current version of Directive 1999/45/EC.

2.2 Critical hazards to man

No special hazards have to be mentioned.

2.3 Critical hazards to the environment

None.

3. Composition/information on ingredients

This product is a preparation. It is an aqueous solution of borax.

3.1 Substances presenting a health / environmental hazard within the meaning of Directive 67/548/EEC

CAS number	EC number	Identification	m %	Symbols	R phrases
1303-96-4	215-540-4	borax decahydrate	< 1	T	60-61

For further details see heading 15.

3.2 Substances for which there are Community workplace exposure limits, which are not already included under heading 3.1 (see also heading 8.)

No substances.

3.3 Additional information

None.

4. First aid measures

4.1 General information

Change soaked clothing.

4.2 after inhalation

Ensure supply of fresh air.

4.3 after contact with skin

In case of contact with skin wash off with water.

4.4 after contact with eyes

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

4.5 after ingestion

In the event of symptoms call physician.

4.6 Hints for the physician

Symptoms n.av.

Hazards n.av.

Treatment Treat symptomatically.

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4.7 First aid equipment

Emergency eyewash should be provided in the immediate working surroundings.

4.8 Additional remarks

None.

5. Fire-fighting measures**5.1 Suitable extinguishing media**

Product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.2 Extinguishing media which must not be used for safety reasons

Product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

In the event of fire the following can be released: irritant gases/vapours.

5.4 Special protective equipment for fire-fighters

Use self-contained breathing apparatus.

5.5 Further information

Do not inhale explosion and/or combustion gases.

Cool endangered containers with water spray jet.

6. Accidental release measures**6.1 Personal precautions** (see also heading 8., Personal protective equipment)

No special measures necessary if used correctly.

6.2 Environmental precautions (see also heading 13., Disposal considerations)

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods for cleaning up

Pick up with absorbent material (e.g. Chemisorb) and dispose of in accordance with the regulations.

6.4 Additional information

None.

7. Handling and storage (National measures see headings 15. and 16.)**7.1 Handling****7.1.1 Advice on safe handling**

No special measures necessary if used correctly.

7.1.2 Advice on protection against fire and explosion

None.

7.2 Storage**7.2.1 Requirements for storage rooms and vessels**

Keep container tightly closed.

7.2.2 Advice on storage compatibility

None.

7.2.3 Further information on storage conditions

Recommended storage temperature: 15 - 25 °C.

7.2.4 Storage class (for Germany only)

LGK 12 (Non-flammable liquids) in accordance with the VCI Guideline for the mixed storage of chemicals.

7.3 Specific use(s)

No information about specific uses available.

8. Exposure controls/Personal protection**8.1 Exposure limit values**

CAS number	Identification	Limit value	Remarks
1303-96-4	borax decahydrate	5 mg/m ³	national limit value – eight hours for U.K.

8.2 Exposure controls

See also heading 7.1.

Additional advice on system design

No additional advice.

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8.2.1 Occupational exposure controls**Personal protective equipment****Respiratory protection**

n.ap.

Hand protection

Protective gloves are recommended in case of frequent or prolonged contact with skin.

Suitable: natural rubber (0.5 mm; breakthrough time \geq 8 h);neoprene (0.5 mm; breakthrough time \geq 8 h);nitrile rubber (0.35 mm; breakthrough time \geq 8 h);butyl rubber (0.5 mm; breakthrough time \geq 8 h);fluorinated rubber (0.4 mm; breakthrough time \geq 8 h);PVC (0.5 mm; breakthrough time \geq 8 h).**Eye protection**

Safety glasses.

Body protection

Light protective clothing.

General protective measures and hygiene measures

Avoid contact with eyes and skin. Change soaked clothing.

At work do not eat, drink, smoke. Wash hands before breaks and after work.

Emergency eyewash should be provided in the immediate working surroundings.

8.2.2 Environmental exposure controls

See heading 6.

9. Physical and chemical properties**9.1 General information****Physical state:** liquid**Colour:** colourless**Odour:** odourless**9.2 Important health, safety and environmental information**

pH (as supplied) (25 °C):

9.18 \pm 0.01

(of an aqueous solution): n.av.

Boiling point / boiling range (°C):

n.av.

Melting point (°C): -0.3

Thermal decomposition:

n.av.

Flash point (°C), c.c.: n.ap.

Ignition temperature (°C):

n.ap.

Lower explosion limit:

n.ap.

Upper explosion limit: n.ap.

Vapour pressure (25 °C):

approx. 22 mbar

Relative density / bulk density:

0.9996 g/cm³

Solubility in water: soluble

Viscosity (25 °C):

approx. 1.1 mm²/s**9.3 Other information**

None

10. Stability and reactivity**10.1 Conditions to avoid**

No particular conditions known.

10.2 Materials to avoid

No particular materials known.

10.3 Hazardous decomposition products

Hazardous decomposition products: irritant gases/vapours (fume of borax).

10.4 Additional information

None.

11. Toxicological information**11.1 Toxicokinetics, metabolism and distribution**

No data are available for the product.

11.2 Acute effects (acute toxicity, irritation and corrosivity)

LD50 rat, oral

(mg/kg)

2660

(borax decahydrate)

(RTECS)

LD50 rabbit, dermal

(mg/kg)

n.av.

LC50 rat, inhalation

(mg/l/4h)

n.av.

Irritant effect on skin

n.av.

Irritant effect on eyes

n.av.

11.3 Sensitisation

No evidence of sensitive properties of the substances contained in this product has been found.

11.4 Repeated dose (sub-acute, sub-chronic, chronic)

No data are available for the product.

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- 11.5 CMR effects (carcinogenicity, mutagenicity, toxicity for the reproduction)**
 Carcinogenicity n.av.
 Mutagenicity n.av.
 Toxicity for the reproduction the product contains < 1% borax decahydrate (Repr. Cat. 2) and is not classified as toxic for the reproduction in accordance with the concentration limits of Directive 2008/58/EC.
- 11.6 Comprehensive evaluation of the CMR properties of substances subject to registration**
 No data available.
- 11.7 Experiences made in practice**
 Fume of borax is irritating the mucous membrane.
- 11.8 General remarks**
 The product has not been tested.

12. Ecological information

12.1 Ecotoxicity

Aquatic toxicity

LC50 (fish) n.av.
 EC50 (daphnia) n.av.
 IC50 (algae) n.av.

Behaviour in sewage works:

The behaviour of the product in sewage treatment plants has not been tested.

12.2 Mobility

The product has not been tested.

12.3 Persistence and degradability

The product has not been tested.

12.4 Bioaccumulative potential

The product has not been tested.

12.5 Results of PBT assessment

No data available.

12.6 Other adverse effects

Ozone depletion potential n.av.
 Photochemical ozone creation potential n.av.
 Global warming potential n.av.
 AOX-hint Not to apply.

12.7 Further information

Chemical oxygen demand (COD) n.av.
 Biochemical oxygen demand (BOD) n.av.

Contains according to the formulation following compounds of directives 2006/11/EC and 80/68/EEC:

None.

13. Disposal considerations

13.1 Product / unused product

Waste disposal corresponding to European Waste Catalogue.
 Wastes must be classified with respect to their origin and depending on different processing steps. The waste codes mentioned as follows are only constituted as our recommendations. Referring to the particular case they should be completed or revised.

Waste type Wastes from inorganic chemical processes
 Waste notation Wastes from the MFSU of salts and their solutions and metallic oxides
 EC waste code 06 03 14 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
 Disposal operations D 9 Physico-chemical treatment
 Recovery operations R 4 Recycling/reclamation of metals and metal compounds

13.2 Contaminated packaging

Recommendation Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
 Packaging that cannot be cleaned should be disposed off as product waste.

Recommended cleansing agent Water

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14. Transport information**14.1 Land transport ADR / RID**

No dangerous good in accordance with the regulations.

14.2 Marine transport / IMDG-Code

No dangerous good in accordance with the regulations.

14.3 Air transport ICAO / IATA-DGR

No dangerous good in accordance with the regulation.

15. Regulatory information**15.1 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out for a substance in the product.

15.2 Labelling in accordance with Directive EC

Symbol(s) of danger: n.ap.

Indication(s) of danger: n.ap.

Hazardous component(s) to be indicated on label: n.ap.

R phrases: n.ap.

S phrases: n.ap.

Special labelling for certain preparations:

Preparations not intended for the general public (the label on the packaging must bear the following inscription):
"Safety data sheet available for professional user on request."**Remarks:** The normal safety precautions for handling of chemicals must be observed.**15.3 Further Community legislation**

Observe employment restrictions under the Maternity Protection Directive (EC 92/85/EEC) for expectant or nursing mothers.

15.4 National measures (for Germany only)

Indications on restriction of occupation: law for the protection of expectant and nursing mothers

Major-accident Regulation: n.ap.

Fire and explosion hazards: n.ap.

Regulation on clean air (TA Luft): n.ap.

Water hazard class: not hazardous to water in accordance with VwVwS

German Ordinance on Hazardous Substances (in accordance with Directive 98/24/EC): Article 7 must be observed
Articles 8, 9, 14 and 15 must be observed as required

16. Other information**16.1 Keeping (restrictions)**

n.ap.

Distribution

for industry consumer, for the general public

16.2 Full text of the R phrases referred to under heading 3 of the Safety Data Sheet

R60: May impair fertility.

R61: May cause harm to the unborn child.

16.3 Technical contact point

SI Analytics GmbH, Herr Dr. M. Lange
 SI Analytics GmbH, Herr H. Becker

Telephone: int+49-(0)6131-66-5051
 Telephone: int+49-(0)6131-66-5116

Version 0021: replacement of version 0020 dated 31.01.2009

Revised headings: page headers, 1.3, 16.3 (change of company identification)

16.4 The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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