

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Buffer Borate pH 10 for determination of total hardness in tap water**

Revision: 04.12.2024

Product code: 20462

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Buffer Borate pH 10 for determination of total hardness in tap water

UFI: 7SNT-R14Y-K00A-6E8A

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

**1.3. Details of the supplier of the safety data sheet**

Company name: AnalytiChem GmbH

ACD

Street: Stempelstraße 6

Place: D-47167 Duisburg

Telephone: 0203/5194-0

Telefax: 0203/5194-290

E-mail: info@analytichem.de

Contact person: Abteilung Produktsicherheit

Telephone: 0203/5194-107/117

E-mail: produktsicherheit@analytichem.de

Internet: www.analytichem.de

Responsible Department: Abteilung Produktsicherheit

**1.4. Emergency telephone****number:**

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**Further Information**

This product is a mixture. REACH Registration Number see section 3.

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Met. Corr. 1; H290

Repr. 1B; H360FD

Skin Corr. 1B; H314

Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Hazard components for labelling**

boric acid

sodium hydroxide

**Signal word:** Danger

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## Pictograms:



## Hazard statements

- H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H360FD May damage fertility. May damage the unborn child.

## Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.

## Special labelling of certain mixtures

Restricted to professional users.

**2.3. Other hazards**

No information available.

## SECTION 3: Composition/information on ingredients

**3.2. Mixtures**

## Chemical characterization

Mixtures in aqueous solution

## Relevant ingredients

| CAS No     | Chemical name                                 |              |                  | Quantity   |
|------------|-----------------------------------------------|--------------|------------------|------------|
|            | EC No                                         | Index No     | REACH No         |            |
|            | Classification (Regulation (EC) No 1272/2008) |              |                  |            |
| 10043-35-3 | boric acid                                    |              |                  | 5 - < 10 % |
|            | 233-139-2                                     | 005-007-00-2 | 01-2119486683-25 |            |
|            | Repr. 1B; H360FD                              |              |                  |            |
| 1310-73-2  | sodium hydroxide                              |              |                  | 2 - < 5 %  |
|            | 215-185-5                                     | 011-002-00-6 | 01-2119457892-27 |            |
|            | Met. Corr. 1, Skin Corr. 1A; H290 H314        |              |                  |            |

Full text of H and EUH statements: see section 16.

## Specific Conc. Limits, M-factors and ATE

| CAS No     | EC No                                                                                                                                 | Chemical name    | Quantity   |
|------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------|------------|
|            | Specific Conc. Limits, M-factors and ATE                                                                                              |                  |            |
| 10043-35-3 | 233-139-2                                                                                                                             | boric acid       | 5 - < 10 % |
|            | inhalation: LC50 = > 2,12 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 3450 mg/kg                                 |                  |            |
| 1310-73-2  | 215-185-5                                                                                                                             | sodium hydroxide | 2 - < 5 %  |
|            | Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2<br>Eye Irrit. 2; H319: >= 0,5 - < 2 |                  |            |

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**Further Information**

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: boric acid

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection!

**After inhalation**

Provide fresh air.

Call a physician immediately.

**After contact with skin**

Wash immediately with:

Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

**4.2. Most important symptoms and effects, both acute and delayed**

Skin corrosion/irritation

Dyspnoea

Cough

Circulatory collapse

**4.3. Indication of any immediate medical attention and special treatment needed**

No data available

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

no restriction

**5.2. Special hazards arising from the substance or mixture**

Non-flammable.

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional information**

Suppress gases/vapours/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

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**General advice**

Corrosive to metals.

**For non-emergency personnel**

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Do not breathe vapour/aerosol.

Read label before use.

Use extractor hood (laboratory).

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Further information on handling**

Take off immediately all contaminated clothing and wash it before reuse.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Draw up and observe skin protection programme. Wash hands before breaks and after work.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Provide adequate ventilation as well as local exhaustion at critical locations.

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Unsuitable container/equipment material:  
Metal.

**Hints on joint storage**

national regulations

**Further information on storage conditions**

Keep container tightly closed.

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational exposure limits**

| CAS No     | Substance                              | ppm | mg/m <sup>3</sup> | fib/cm <sup>3</sup> | Category      | Origin |
|------------|----------------------------------------|-----|-------------------|---------------------|---------------|--------|
| 10043-35-3 | Borate compounds inorganic: boric acid | -   | 2                 |                     | TWA (8 h)     |        |
| 1310-73-2  | Sodium hydroxide                       | -   | 2                 |                     | STEL (15 min) |        |

**DNEL/DMEL values**

| CAS No                   | Substance        |                |          |                   |
|--------------------------|------------------|----------------|----------|-------------------|
| DNEL type                |                  | Exposure route | Effect   | Value             |
| 10043-35-3               | boric acid       |                |          |                   |
| Worker DNEL, long-term   |                  | inhalation     | systemic | 8,3 mg/m³         |
| Worker DNEL, long-term   |                  | dermal         | systemic | 392 mg/kg bw/day  |
| Consumer DNEL, long-term |                  | inhalation     | systemic | 4,15 mg/m³        |
| Consumer DNEL, long-term |                  | dermal         | systemic | 196 mg/kg bw/day  |
| Consumer DNEL, long-term |                  | oral           | systemic | 0,98 mg/kg bw/day |
| Consumer DNEL, acute     |                  | oral           | systemic | 0,98 mg/kg bw/day |
| 1310-73-2                | sodium hydroxide |                |          |                   |
| Worker DNEL, long-term   |                  | inhalation     | local    | 1 mg/m³           |
| Consumer DNEL, long-term |                  | inhalation     | local    | 1 mg/m³           |

**PNEC values**

| CAS No                                           | Substance  |           |
|--------------------------------------------------|------------|-----------|
| Environmental compartment                        |            | Value     |
| 10043-35-3                                       | boric acid |           |
| Freshwater                                       |            | 2,9 mg/l  |
| Freshwater (intermittent releases)               |            | 13,7 mg/l |
| Marine water                                     |            | 2,9 mg/l  |
| Micro-organisms in sewage treatment plants (STP) |            | 10 mg/l   |
| Soil                                             |            | 5,7 mg/kg |

**8.2. Exposure controls****Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

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If handled uncovered, arrangements with local exhaust ventilation have to be used.

Do not breathe gas/fumes/vapour/spray.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L

Suitable material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L

Suitable material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>, <)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

|                                                           |                   |                   |
|-----------------------------------------------------------|-------------------|-------------------|
| Physical state:                                           | Liquid            |                   |
| Colour:                                                   | colourless        |                   |
| Odour:                                                    | odourless         |                   |
| Odour threshold:                                          | No data available |                   |
| Melting point/freezing point:                             |                   | No data available |
| Boiling point or initial boiling point and boiling range: |                   | No data available |
| Flammability:                                             |                   | not applicable    |
| Lower explosion limits:                                   |                   | not determined    |
| Upper explosion limits:                                   |                   | not determined    |
| Flash point:                                              |                   | X                 |
| Auto-ignition temperature:                                |                   | No data available |
| Decomposition temperature:                                |                   | not determined    |
| pH-Value:                                                 |                   | 11,1              |
| Viscosity / kinematic:                                    |                   | No data available |

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Solubility in other solvents

not determined

Dissolution rate:

No data available

Partition coefficient n-octanol/water:

No data available

Dispersion stability:

No data available

Vapour pressure:

No data available

Vapour pressure:

No data available

Density:

1,0722 g/cm<sup>3</sup>

Relative density:

No data available

Bulk density:

No data available

Relative vapour density:

not determined

Particle characteristics:

No data available

**9.2. Other information****Information with regard to physical hazard classes**

Sustained combustibility:

No data available

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

Not oxidising.

**Other safety characteristics**

Evaporation rate:

not determined

Solvent separation test:

No data available

Solvent content:

0

Solid content:

0

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

Viscosity / dynamic:

No data available

Flow time:

No data available

**Further Information**

No data available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Corrosive to metals.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Alkali metals

Ammonia (NH<sub>3</sub>)

Metal

Acid

(NaOH 30%) Metals, lightweight metals (hydrogen may be produced) Nitriles, ammonium compounds, cyanides, magnesium, organic nitro compounds, organic flammable materials, phenols, oxidisable substances, powdered alkaline earth metals, acids.

**10.4. Conditions to avoid**

none

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**10.5. Incompatible materials**

Aluminium Brass Glass various plastics

Keep away from: Metal.

The product develops hydrogen in an aqueous solution in contact with metals.

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**Further information**

No data available

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

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

**ATEmix calculated**

ATE (oral) &gt; 2000 mg/kg; ATE (dermal) &gt; 2000 mg/kg; ATE (inhalation vapour) &gt; 20 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l

| CAS No     | Chemical name              |                   |         |                                         |                    |
|------------|----------------------------|-------------------|---------|-----------------------------------------|--------------------|
|            | Exposure route             | Dose              | Species | Source                                  | Method             |
| 10043-35-3 | boric acid                 |                   |         |                                         |                    |
|            | oral                       | LD50 3450 mg/kg   | Rat     | Toxicology and Applied Pharmacology 23: | other: No data     |
|            | dermal                     | LD50 > 2000 mg/kg | Rabbit  | Study report (1982)                     | other: FIFRA       |
|            | inhalation (4 h) dust/mist | LC50 > 2,12 mg/l  | Rat     | Study report (1997)                     | OECD Guideline 403 |

**Irritation and corrosivity**

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

May damage fertility. May damage the unborn child. (boric acid)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: 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.

**Information on likely routes of exposure**

There are no data available on the mixture itself.

**Specific effects in experiment on an animal**

There are no data available on the mixture itself.



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**Additional information on tests**

There are no data available on the mixture itself.

**Practical experience**

There are no data available on the mixture itself.

**11.2. Information on other hazards****Endocrine disrupting properties**

There are no data available on the mixture itself.

**Other information**

There are no data available on the mixture itself.

**Further information**

Adverse human health effects and symptoms: Gastric perforation.

Mucous membrane irritation in the mouth, throat, esophagus and gastrointestinal tract.

Inhalation effect: Damage to the respiratory tract.

**SECTION 12: Ecological information****12.1. Toxicity**

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

| CAS No     | Chemical name            |                  |           |         |                                                           |                                                                                                  |
|------------|--------------------------|------------------|-----------|---------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------|
|            | Aquatic toxicity         | Dose             | [h]   [d] | Species | Source                                                    | Method                                                                                           |
| 10043-35-3 | boric acid               |                  |           |         |                                                           |                                                                                                  |
|            | Acute fish toxicity      | LC50<br>mg/l     | 79,7      | 96 h    | Pimephales<br>promelas                                    | Study report<br>(2010)<br>other: ASTM<br>E729-95<br>Standard Guide<br>for C                      |
|            | Acute algae toxicity     | ErC50            | 66 mg/l   | 72 h    | Phaeodactylum<br>tricornutum                              | Study report<br>(2011)<br>ISO 10253                                                              |
|            | Acute crustacea toxicity | EC50             | 109 mg/l  | 48 h    | Ceriodaphnia dubia                                        | Study report<br>(2010)<br>other: ASTM<br>E729-95<br>Standard Guide<br>for C                      |
|            | Fish toxicity            | NOEC             | 11,2 mg/l | 32 d    | Pimephales<br>promelas                                    | Study report<br>(2010)<br>other: ASTM<br>E1241-05<br>Standard Guide<br>for                       |
|            | Algae toxicity           | NOEC<br>mg/l     | 17,5      | 3 d     | Pseudokirchneriella<br>subcapitata                        | Study report<br>(2000)<br>OECD Guideline<br>201                                                  |
|            | Crustacea toxicity       | NOEC<br>mg/l     | 25,9      | 42 d    | other aquatic<br>crustacea: Hyalella<br>azteca            | Study report<br>(2010)<br>other: US EPA<br>2000 Methods for<br>assessing                         |
|            | Acute bacteria toxicity  | EC50<br>mg/l ( ) | > 10000   | 3 h     | activated sludge of a<br>predominantly<br>domestic sewage | Study report<br>(2001)<br>OECD Guideline<br>209                                                  |
| 1310-73-2  | sodium hydroxide         |                  |           |         |                                                           |                                                                                                  |
|            | Acute crustacea toxicity | EC50<br>mg/l     | 40,4      | 48 h    | Ceriodaphnia sp.                                          | Ecotoxicology and<br>Environmental<br>Safety,4<br>other: acute 48-h<br>immobilization<br>test ac |

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

**12.3. Bioaccumulative potential**

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There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

| CAS No     | Chemical name | Log Pow |
|------------|---------------|---------|
| 10043-35-3 | boric acid    | -1,09   |

**BCF**

| CAS No     | Chemical name | BCF   | Species            | Source              |
|------------|---------------|-------|--------------------|---------------------|
| 10043-35-3 | boric acid    | 0,558 | Oncorhynchus nerka | Water Research Vol. |

**12.4. Mobility in soil**

There are no data available on the mixture itself.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

There are no data available on the mixture itself.

**Further information**

Do not allow to enter into surface water or drains.  
Discharge into the environment must be avoided.  
Harmful effect due to pH shift.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains.  
Send to a physico-chemical treatment facility under observation of official regulations.  
Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled.

**SECTION 14: Transport information****Land transport (ADR/RID)**

|                                          |                           |
|------------------------------------------|---------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 1824                   |
| <b>14.2. UN proper shipping name:</b>    | SODIUM HYDROXIDE SOLUTION |
| <b>14.3. Transport hazard class(es):</b> | 8                         |
| <b>14.4. Packing group:</b>              | II                        |
| Hazard label:                            | 8                         |
| Classification code:                     | C5                        |
| Limited quantity:                        | 1 L                       |
| Excepted quantity:                       | E2                        |
| Transport category:                      | 2                         |
| Hazard No:                               | 80                        |
| Tunnel restriction code:                 | E                         |

**Inland waterways transport (ADN)**

|                                          |                           |
|------------------------------------------|---------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 1824                   |
| <b>14.2. UN proper shipping name:</b>    | SODIUM HYDROXIDE SOLUTION |
| <b>14.3. Transport hazard class(es):</b> | 8                         |
| <b>14.4. Packing group:</b>              | II                        |

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Hazard label: 8  
Classification code: C5  
Limited quantity: 1 L  
Excepted quantity: E2

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 1824  
**14.2. UN proper shipping name:** SODIUM HYDROXIDE, SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8  
Special Provisions: -  
Limited quantity: 1 L  
Excepted quantity: E2  
EmS: F-A, S-B

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 1824  
**14.2. UN proper shipping name:** SODIUM HYDROXIDE, SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8  
Special Provisions: A3 A803  
Limited quantity Passenger: 0.5 L  
Passenger LQ: Y840  
Excepted quantity: E2  
IATA-packing instructions - Passenger: 851  
IATA-max. quantity - Passenger: 1 L  
IATA-packing instructions - Cargo: 855  
IATA-max. quantity - Cargo: 30 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Warning: strongly corrosive.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Authorisations (REACH, annex XIV):

Substances of very high concern, SVHC (REACH, article 59):  
boric acid

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 30, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**National regulatory information**

according to Regulation (EC) No 1907/2006

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**Employment restrictions:**

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

**Water hazard class (D):**

1 - slightly hazardous to water

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 1,3,7,8,9,11,12,13,14,15.

**Abbreviations and acronyms**

Met. Corr. 1: Corrosive to metals, hazard category 1

Skin Corr. 1A: Skin corrosion, sub-category 1A

Eye Dam. 1: Serious eye damage, hazard category 1

Repr. 1B: Reproductive toxicity, hazard category 1B

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

IATA: International Air Transport Association

GHS: Globally Harmonized 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

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

| Classification      | Classification procedure |
|---------------------|--------------------------|
| Met. Corr. 1; H290  | On basis of test data    |
| Repr. 1B; H360FD    | Calculation method       |
| Skin Corr. 1B; H314 | Calculation method       |
| Eye Dam. 1; H318    | Calculation method       |

**Relevant H and EUH statements (number and full text)**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H360FD May damage fertility. May damage the unborn child.

**Further Information**

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.

Provide appropriate information, instructions and training to users

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*