

**WTW Safety Data Sheet**  
According to EC Directives 91/155/EEC

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

*Product name:*

**Working Reference Buffer Solution APL- 9**

**Ord. No.: 109 015**

**Model: APL- 9**

*Manufacturer:*

WTW Wissenschaftlich-Technische Werkstätten GmbH, Dr.-Karl-Slevogt-Straße 1, D-82362 Weilheim, Germany, Tel.: +49(0)881 183-0, Fax.: +49(0)881 183-420

Emergency telephone:  
(001)-703-527-3887

**2. Composition/information on ingredients**

*Chemical characterization:* Aqueous saline solution

*Hazardous ingredients:* di-Sodium tetraborate decahydrate

*Hazard symbols:* No hazardous product

*R-phrases:* /

*Content:* 0,4 %

*CAS-No.:* 1303-96-4

*EINECS-No.:* 215-540-4

**3. Hazards identification**

No hazardous product.

**4. First aid measures**

*After inhalation:* Fresh air

*After skin contact:* Wash off with plenty of water.  
Remove contaminated clothing.

*After eye contact:* Rinse out with plenty of water with the eyelid held wide open. Summon eye specialist if necessary.

*After ingestion:* Make injured person drink plenty of water, induce vomiting, summon doctor.

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#### 5. Fire-fighting measures

*Suitable extinguishing media:* Water , CO<sub>2</sub> , foam, powder

*Unsuitable extinguishing media:* No information available

*Special risks:* None

*Other information:* Non-combustible

#### 6. Accidental release measures

*Personal-related precautionary measures:* Avoid generation of vapours and aerosols.  
Do not inhale vapours and aerosols.

*Environmental-protection measures:* None

*Procedures for cleaning/absorption:* Clean up affected area with water.

#### 7. Handling and storage

*Handling:* No further requirements.

*Storage:* Store tightly closed.

#### 8. Exposure control/personal protection

*Specific control parameters:* None

Personal protective equipment

*Respiratory protection:* Required when vapours and aerosols are generated.

*Eye protection:* Protective glasses

*Hand protection:* Gloves (nitrile rubber)

*Industrial hygiene:* Wash hands and face after working with solution.

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#### 9. Physical and chemical properties

|   |                           |                         |
|---|---------------------------|-------------------------|
| <i>Form:</i> Liquid                             | <i>Colour:</i> Colourless | <i>Odour:</i> Odourless |
| <i>pH-value</i>                                 | 9,18 ± 0,01 at 25°C       |                         |
| <i>Melting temperature:</i>                     | -0,3°C                    |                         |
| <i>Boiling temperature:</i>                     | about 100°C               |                         |
| <i>Ignition temperature:</i>                    | °C                        |                         |
| <i>Flash point:</i>                             | °C                        |                         |
| <i>Explosion limite lower:</i>                  | /                         |                         |
| <i>                                  upper:</i> | /                         |                         |
| <i>Density:</i>                                 | 0,9996 g/cm <sup>3</sup>  |                         |
| <i>Solubility in water:</i>                     | miscible                  |                         |
| <i>Thermal decomposition:</i>                   | /                         |                         |

#### 10. Stability and reactivity

|  |                          |
|--|--------------------------|
| <i>Conditions to be avoided:</i>         | No information available |
| <i>Substances to be avoided:</i>         | No information available |
| <i>Hazardous decomposition products:</i> | No information available |
| <i>Further information:</i>              | None                     |

#### 11. Toxicological information

|   |   |
|---|---|
| <i>Acute toxicity:</i>                    | LD 50 (oral, rat): 2660 mg/kg (for Sodium tetraborate)<br>LDLo (oral, human): 709 mg/kg (for Sodium tetraborate)  |
| <i>Further toxicological information:</i> | Absorption via gastrointestinal tract, skin, mucous membranes.<br>The following applies to boron compounds in general: resorption is followed by nausea and vomiting, agitation, spasms, CNS disorders, cardiovascular disorders. Further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals. |

#### 12. Ecological information

|                          |  |
|--------------------------|--|
| <i>Ecotoxic effects:</i> | Biological effects: Herbicidal effect, trace element, fertilizing effect possible. Boric acid developing as a result of hydrolysis. Ttoxic for aquatic organisms. Do not allow to enter drinking water supplies, waste water, or soil. |
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#### 13. Disposal considerations

*Products:* There are no uniform regulations for the disposal of chemicals or residues. The disposal is regulated through corresponding regional laws and 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.

*Packaging:* Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, noncontaminated packaging may be treated like household waste or recycled.

#### 14. Transport information

Not subject to transport regulations.

#### 15. Regulatory information

Labelling according to EC directives

*Symbol:* No hazardous product

*R-phrases: /*

*S-phrases: /*

German regulations

*Water pollution class;* nonpolluting solution

*Stprage class VCI:* 12

*Regulation on combustible liquids;* VbF: Non-combustible

*Other regulations:* None

#### 16. Other information

Date of issue: 15.07.2006

Supersedes edition of 22.01.2004

Reason for alteration: General update

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.