

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

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

Product name:

pH 12.454 Standard Buffer

Ord. No.: 109 400

Model: PL 12

Manufacturer:

WTW Wissenschaftlich-Technische Werkstätten GmbH, Dr.-Karl-Slevogt-Straße 1, D-82362 Weilheim, Germany, Tel.: (0881) 183-0, Fax.: (0881) 62539

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

2. Composition/information on ingredients

Chemical characterization: Aqueous alkaline solution

Hazardous ingredients: Calcium hydroxide

Hazard symbols: Irritant (Xi)

R-phrases: 41

Content: 0,4 %

CAS-No.: 1305-62-0

EINECS-No.: 215-137-3

EG-No.: 215-137-3

3. Hazards identification

Risk of serious damage to eyes.

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.

After ingestion: Make injured person drink plenty of water.
(If necessary several litres)
Summon doctor.

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5. Fire-fighting measures

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| <i>Suitable extinguishing media:</i> | To suit environment. |
| <i>Unsuitable extinguishing media:</i> | No information available. |
| <i>Special risks:</i> | None |
| <i>Other information:</i> | Non-combustible |

6. Accidental release measures

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| <i>Personal-related precautionary measures:</i> | Avoid inhalation of vapours and aerosols. |
| <i>Environmental-protection measures:</i> | Do not allow to enter sewerage system. |
| <i>Procedures for cleaning/absorption:</i> | Take up with liquid-absorbent material. Clean up affected area with water. |

7. Handling and storage

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| <i>Handling:</i> | No further requirements |
| <i>Storage:</i> Store tightly closed. | Do not use light-weight-metal containers. |

8. Exposure control/personal protection

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| <i>Specific control parameters:</i> | None |
| Personal protective equipment | |
| <i>Respiratory protection:</i> | Required when aerosols are generated. |
| <i>Eye protection:</i> | Protective glasses |
| <i>Hand protection:</i> | Gloves |
| <i>Industrial hygiene:</i> | Wash hands and face after working with solution. Change contaminated clothing. |

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9. Physical and chemical properties

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|---|-----------------------------------|-------------------------|
| <i>Form:</i> Liquid | <i>Colour:</i> White (suspension) | <i>Odour:</i> Odourless |
| <i>pH-value</i> | 12.454 at 25°C | |
| <i>Melting temperature:</i> | °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> | / | |
| <i>Solubility in water:</i> | miscible | |
| <i>Thermal decomposition:</i> | / | |

10. Stability and reactivity

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| <i>Conditions to be avoided:</i> | Avoid unnecessary admission of air. |
| <i>Substances to be avoided:</i> | Acids, hydrogen sulfide, light metals. |
| <i>Hazardous decomposition products:</i> | No information available |
| <i>Further information:</i> | Avoid contact with ammonium compounds. (Generation of ammonia) |

11. Toxicological information

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| <i>Acute toxicity:</i> | LD 50 oral rat 7340 mg/kg |
| <i>Further toxicological information:</i> | After eye contact: severe irritations, risk of corneal clouding, risk of blindness! After ingestion: irritations of gastrointestinal tract. |

12. Ecological information

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| <i>Ecotoxic effects:</i> | Toxic for aquatic organisms. Harmful effect due to pH shift. Neutralization possible in waste water treatment plants. No ecological problems are to be expected when the product is handled and used due care and attention.. |
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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

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|-------------------------------|---|
| <i>Symbol:</i> | Irritant (Xi) |
| <i>R-phrases:</i> 41 | Risk of serious damage to eyes. |
| <i>S-phrases:</i> 23-24-26-39 | Do not breathe aerosols. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection. |

German regulations

Water pollution class; nonpolluting solution

Regulation on combustible liquids; VbF: Non-combustible

Other regulations: None

16. Other information

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|------------------------|----------------|
| Date of issue: | 22.1.2004 |
| Supersedes edition of | 4.12.2002 |
| 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.