

## 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** TE buffer (1X) Molecular biology grade
- **Article number:** A0386
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** laboratory chemical
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
AppliChem GmbH  
Ottoweg 4  
D-64291 Darmstadt  
Tel.: +49 (0)6151 93570  
msds@appliance.com
- **Further information obtainable from:** Abteilung Qualitätskontrolle / Dep. Quality Control
- **Emergency telephone number:**  
+49(0)6151 93570 (während der normalen Geschäftszeiten / Inside normal business hours)

## 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The product is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
- **Information concerning particular hazards for human and environment:**  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

## 4 First aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Wash off with plenty of water.  
If skin irritation continues, consult a doctor.

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- **After eye contact:**  
Rinse opened eye for several minutes under running water.  
Seek medical treatment.
- **After swallowing:**  
Rinse out mouth.  
If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Water, CO<sub>2</sub>, foam, powder.
- **Special hazards arising from the substance or mixture** Ambient fire may liberate hazardous vapours.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Contain escaping vapours with water.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Do not inhale steams/aerosols.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Clean up affected area.
- **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.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **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 sealed.
- **Recommended storage temperature:** 15-25 °C
- **Storage class:** 10-13
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

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- **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.*
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** *Change contaminated clothing.*
- **Respiratory protection:**  
*Respiratory protection required when vapours/aerosols are generated.*  
*Filter ABEK*
- **Protection of hands:**  
*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.*  
*Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*
- **Material of gloves**  
*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*
- **Penetration time of glove material**  
*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*
- **For the permanent contact gloves made of the following materials are suitable:**  
*Nitrile rubber, NBR*  
*Recommended thickness of the material:  $\geq 0.11$  mm*  
*Value for the permeation: Level  $\geq 480$  min*
- **As protection from splashes gloves made of the following materials are suitable:**  
*Nitrile rubber, NBR*  
*Recommended thickness of the material:  $\geq 0.11$  mm*  
*Value for the permeation: Level  $\geq 480$  min*
- **Eye protection:** *Safety glasses*
- **Body protection:**  
*Protective work clothing*  
*Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.*

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

· <b>Form:</b>	<i>Fluid</i>
· <b>Colour:</b>	<i>Colourless</i>
· <b>Odour:</b>	<i>Odourless</i>
· <b>Odour threshold:</b>	<i>Not determined.</i>
- **pH-value:** *Not determined.*
- **Change in condition**

· <b>Melting point/Melting range:</b>	<i>Undetermined.</i>
· <b>Boiling point/Boiling range:</b>	<i>Undetermined.</i>
- **Flash point:** *Not applicable.*
- **Flammability (solid, gaseous):** *Not applicable.*

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· **Ignition temperature:**

**Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

· **Vapour pressure:** Not determined.

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

**Dynamic:** Not determined.

**Kinematic:** Not determined.

· **Solvent content:**

**Organic solvents:** 0,0 %

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

## 10 Stability and reactivity

· **Reactivity**

· **Chemical stability**

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

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

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

· **Incompatible materials:** No further relevant information available.

· **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

Quantitative data on the toxicological effect of this product are not available.

· **Primary irritant effect:**

· **on the skin:** No data available

· **on the eye:** No data available.

· **After inhalation:** No data available

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

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## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **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.  
 Do not allow to enter waters, waste water, or soil.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** Chemicals must be disposed of in compliance with the respective national regulations.
- **Uncleaned packaging:**
- **Recommendation:**  
 Disposal must be made according to official regulations.  
 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.

## 14 Transport information

- |  |  |
|--|--|
| · <b>UN-Number</b>   |  |
| · <b>ADR, ADN, IMDG, IATA</b>  | Void   |
| · <b>UN proper shipping name</b>   |  |
| · <b>ADR, ADN, IMDG, IATA</b>  | Void   |
| · <b>Transport hazard class(es)</b>  |  |
| · <b>ADR, ADN, IMDG, IATA</b>  |  |
| · <b>Class</b>   | Void   |
| · <b>Packing group</b>   |  |
| · <b>ADR, IMDG, IATA</b>   | Void   |
| · <b>Environmental hazards:</b>  |  |
| · <b>Marine pollutant:</b>   | No   |
| · <b>Special precautions for user</b>  | Not applicable.                                      |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.                                      |
| · <b>Transport/Additional information:</b>                                       | Not dangerous according to the above specifications. |
| · <b>UN "Model Regulation":</b>  | -  |

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### 15 Regulatory information

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing MSDS:** Abteilung Qualitätskontrolle / Dept. Quality Control

- **Contact:** Hr. / Mr. Th. Stöckle

- **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*

*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 (division of the American Chemical Society)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*