

# SAFETY DATA SHEET

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**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

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**PRODUCT NAME:** 10X TBE BUFFER**PRODUCTNUMBER :** F9863**SUPPLIER:** APPLIED BIOSYSTEMS  
7 KINGSLAND GRANGE, WOOLSTON  
WARRINGTON, CHESHIRE, WA1 4SR,  
UNITED KINGDOM  
www.appliedbiosystems.comIN CASE OF EMERGENCY CALL  
CHEMTREC +1-301-431-8585.**PRODUCT USE DESCRIPTION:** FOR RESEARCH USE ONLY. NOT FOR USE IN  
DIAGNOSTIC PROCEDURES

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**2. COMPOSITION/INFORMATION ON INGREDIENTS**

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Hazardous components	CAS-No.	EC-No. (EINECS-No.)	Weight %	Classification
Tris Base	77-86-1	201-064-4	1 - 10 %	Xi R36/38 Irritant
BORIC ACID	10043-35-3	233-139-2	1 - 10 %	T R60, R61 Toxic

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**3. HAZARDS IDENTIFICATION**

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**European Union Classification:**

T Toxic

**R-phrases(s)**R61 May cause harm to the unborn child.  
R60 May impair fertility.**S-phrases(s)**S45 In case of accident or if you feel unwell, seek medical advice  
immediately (show the label where possible).  
S53 Avoid exposure - obtain special instructions before use.

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**4. FIRST AID MEASURES**

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**Eye contact** Immediately flush eyes for at least 15 minutes. Get medical attention.

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<b>Inhalation</b>	Remove to fresh air immediately. Get medical attention immediately. If not breathing, give artificial respiration.
<b>Skin contact</b>	Rinse immediately with plenty of water and seek medical advice. Remove and wash contaminated clothing before re-use.
<b>Ingestion</b>	If swallowed, call a poison control centre or doctor immediately. Never give anything by mouth to an unconscious person.

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## 5. FIRE-FIGHTING MEASURES

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<b>Suitable extinguishing media</b>	Water spray Carbon dioxide (CO <sub>2</sub> ) Foam Dry chemical
<b>Hazardous decomposition products</b>	Carbon oxides, nitrogen oxides (NO <sub>x</sub> )
<b>Special protective equipment for fire-fighters</b>	Wear self contained breathing apparatus for fire fighting if necessary. Use personal protective equipment.

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## 6. ACCIDENTAL RELEASE MEASURES

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### Personal precautions

Ensure adequate ventilation.  
Avoid contact with skin, eyes and clothing.  
Avoid breathing dust/fume/gas/mist/vapours/spray.

### Environmental precautions

Should not be released into the environment. Prevent product from entering drains.

### Methods for cleaning up

Clean contaminated floors and objects thoroughly while observing environmental regulations. Ensure adequate ventilation.

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.

### Storage conditions

Protect against physical damage. Isolate from incompatible substances. Store in original container. See product label for specific storage requirements.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Exposure limit(s)

We are not aware of any national exposure limit.

<b>Eye protection</b>	Chemical resistant goggles must be worn. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Hand protection</b>	Wear suitable gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
<b>Respiratory protection</b>	Avoid breathing vapors, mist or gas. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. For unknown concentrations or Immediately Dangerous to Life or Health (IDLH), use a full-facepiece positive pressure air supplied respirator.
<b>Skin protection</b>	Wear suitable protective clothing.
<b>Engineering measures</b>	Maintain air concentrations below occupational exposure standards. Use only in area provided with appropriate exhaust ventilation.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Physical state</b>	liquid
<b>Colour</b>	This information is not available.
<b>Odour</b>	This information is not available.
<b>Odour Odour Threshold</b>	This information is not available.
<b>pH</b>	This information is not available.
<b>Boiling point</b>	This information is not available.
<b>Melting point</b>	This information is not available.
<b>Vapour pressure</b>	This information is not available.
<b>Water solubility</b>	This information is not available.
<b>Flash point</b>	This information is not available.
<b>Explosion limits</b>	This information is not available.
<b>Density</b>	This information is not available.
<b>Percent volatile</b>	This information is not available.
<b>Volatile organic compounds (VOC) content</b>	This information is not available.

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## 10. STABILITY AND REACTIVITY

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<b>Conditions to avoid</b>	Keep away from open flames, hot surfaces and sources of ignition.
<b>Materials to avoid</b>	Oxidizing agents, Aluminium, Copper, Potassium, Acetic anhydride
<b>Hazardous decomposition products</b>	Carbon oxides, nitrogen oxides (NOx)

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## 11. TOXICOLOGICAL INFORMATION

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Hazardous components : Tris Base

<b>Acute oral toxicity</b>	Oral LD50 rat 5,900 mg/kg
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Hazardous components : **BORIC ACID**

**Acute oral toxicity** Oral LD50 rat 2,660 mg/kg  
**Acute inhalation toxicity** Inhalation LC50 rat 4 h > 0.16 mg/l  
**Acute dermal toxicity** Dermal LD50 rabbit > 2,000 mg/kg

**Further information**

The product itself has not been tested.

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## 12. ECOLOGICAL INFORMATION

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We have no quantitative data concerning the ecological effects of this product.  
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**BORIC ACID**

**Ecotoxicity effects**

**Toxicity to fish** flow-through LC50 Carassius auratus (goldfish) 72 h  
1,020 mg/l

**Toxicity to daphnia** Static EC50 water flea 48 h  
115.0 mg/l

EC50 Daphnia magna (Water flea) 48 h  
658 - 875 mg/l

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## 13. DISPOSAL CONSIDERATIONS

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**Environmental precautions** Should not be released into the environment. Prevent product from entering drains.

**Disposal methods** Dispose of in accordance with local regulations.

**General advice** **DISPOSAL CONSIDERATIONS**  
The product has to be disposed of as laboratory chemical in accordance with local regulations.

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## 14. TRANSPORT INFORMATION

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**IATA-DGR**

Not dangerous goods

**IMDG**

Not dangerous goods

**ADR**

Not dangerous goods

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## 15. REGULATORY INFORMATION

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**Labelling**

Hazard symbol(s) and indication(s) of danger for dangerous substances and preparations



T: Toxic

**R-phrase(s)**

R61 May cause harm to the unborn child.  
R60 May impair fertility.

**S-phrase(s)**

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S53 Avoid exposure - obtain special instructions before use.

**National Inventory Status - European Union****EINECS**

All components of this substance are listed on or are exempt from the inventory.

**ELINCS**

All components of this substance are listed on or are exempt from the inventory.

**NLP**

All components of this substance are listed on or are exempt from the inventory.

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**16. OTHER INFORMATION**

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Disclaimer: This MSDS has been prepared using information from sources considered technically reliable. It should not be relied upon as a product specification. The company makes no warranty of any kind, expressed or implied, concerning the safe use of this material in your process or in combination with other chemical substances. Every user of the product is responsible for evaluating its own processes and conditions of use and selecting appropriate protective measures for employee exposure.

**Text of R-phrases mentioned in Section 2**

R36/38 Irritating to eyes and skin.  
R60, R61 May impair fertility., May cause harm to the unborn child.

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