

## MATERIAL SAFETY DATA SHEET

### Tris-Borate-EDTA Buffer

#### 1. Product and Company Information

<b>Product Name:</b>	Tris-Borate-EDTA Buffer
<b>Product Number</b>	A12-9110, A12-9111, A12-9112
<b>Synonyms:</b>	Electrophoresis Running Buffer
<b>Manufacturer:</b>	Medicago AB Danmark Berga 755 98 Uppsala Sweden
<b>Phone</b>	+46 (0) 18 56 11 80
<b>Fax</b>	+46 (0) 18 56 11 88
<b>Emergency Phone:</b>	112 (Sweden)

#### 2. Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Irritating to eyes, respiratory system and skin.



#### 3. Composition/Information on Ingredients

Product Name		CAS #	EC #	
<b>TRIS-BORATE-EDTA BUFFER</b>		<b>None</b>	<b>None</b>	
<b>Ingredient name:</b>	<b>Percent</b>	<b>CAS no.:</b>	<b>EC no.:</b>	<b>Annex I Index Number</b>
TRIS (HYDROXYMETHYL) AMINOMETHANE FREE BASE Symbols: Xi R-Phrases: 36/37/38: Irritating to eyes, respiratory system and skin.	63.4	None	None	None
BORIC ACID	32.3	None	None	None
ETHYLENEDIAMINETETRAACETI C ACID DISODIUM DIHYDRATE	4.3	None	None	None

#### 4. First-Aid Measures

##### AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

##### AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious amounts of water.

##### AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

##### AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Get medical attention.

#### 5. Fire-Fighting Measures

##### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

**SPECIAL RISKS**

Specific Hazard (s): Emits toxic fumes under fire conditions

**SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## 6. Accidental Release Measures

**PROCEDURE (S) OF PERSONAL PRECAUTION (S)**

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

**METHODS FOR CLEANING UP**

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

## 7. Handling and Storage

**HANDLING**

Directions for Safe Handling: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**STORAGE**

Conditions of Storage: Keep tightly closed.

## 8. Exposure Controls/Personal Protection

**ENGINEERING CONTROLS**

Safety shower and eye bath. Mechanical exhaust required.

**GENERAL HYGIENE MEASURES**

Wash thoroughly after handling.

**PERSONAL PROTECTIVE EQUIPMENT**

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Sin: Compatible chemical-resistant gloves.

Eyes: Chemical safety goggles.

## 9. Physical and Chemical Properties

Appearance	Physical state:	Solid.
pH		8.3
BP/BP Range		N/A
MP/MP Range		N/A
Flammability		N/A
Autoignition Temp		N/A
Oxidizing Properties		N/A
Explosive Properties		N/A
Explosion Limits		N/A
Vapor Pressure		N/A
SG/Density		N/A
Partition Coefficient		N/A
Viscosity		N/A
Vapor Density		N/A
Saturated Vapor Conc.		N/A
Evaporation Rate		N/A
Bulk Density		N/A
Decomposition Temp		N/A
Solvent Content		N/A
Water Content		N/A
Surface Tension		N/A
Conductivity		N/A
Miscellaneous Data		N/A
Solubility in water		Soluble

## 10. Stability and Reactivity

STABILITY: Stable.

Materials to Avoid: Strong oxidizing agents, Potassium, Acid anhydrides.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Nature of decomposition products not known.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

## 11. Toxicological Information

SIGNS AND SYMPTOMS OF EXPOSURE

Toxicity reported for borates in humans: ingestion or absorption may cause nausea, vomiting, diarrhea, abdominal cramps, and erythematous lesions on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium, convulsions, and coma. Death has been reported to occur in infants from less than 5 grams and in adults from 5 to 20 grams. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes severe eye irritation.

Inhalation: Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled. Ingestion: May be harmful if swallowed.

TARGET ORGAN INFORMATION

Testes.

## 12. Ecological Information

No data available.

## 13. Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

## 14. Transport Information

RID/ADR

Non-hazardous for road transport.

IMDG

Non-hazardous for sea transport

IATA

Non-hazardous for air transport

## 15. Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: Xi

Irritant

R-Phrases: 36/37/38

Irritating to eyes, respiratory system and skin.

S-PHRASES: 26-36

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

Caution: Substance not yet fully tested (EU).

#### COUNTRY SPECIFIC INFORMATION

Germany  
WGK: 2  
Self-Classification

## 16. Other Information

**Precautions and Disclaimer:** For laboratory use only. Not for drug, household or other uses.

**Revision date:** 2010-05-19

#### WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Medicago AB, Sweden shall not be held liable for any damage resulting from handling or from contact with the above product.