

Jule, Inc.  
MATERIAL SAFETY DATA SHEET

Date updated: 12/07/2011

**Section 1 - Product and Company Information**

Product Name: 10X TBE Tris/Borate/EDTA Buffer 1 Liter

Product Number: TBERB10X

Company Address: JULE, INC  
185 RESEARCH DRIVE SUITE #6  
MILFORD, CT 06460 US

Technical Phone: 800-648-1772  
Fax: 203-878-7448  
Emergency Phone: 800-222-1222 (Poison Control)

**Section 2 – Composition/Information on Ingredient**

• **Chemical characterization**

• **Description:**

Mixture of the substances listed below with non hazardous additions

**Dangerous Components**

<b>Ingredient Name</b>	<b>Cas #</b>	<b>Percent</b>
Water	Cas #:7732-18-5 Einecs #: 231-791-2	50-100%
Tris (hydroxymethyl) amino methane	Cas #: 77-86-1 Einecs #: 201-064-4 XN; R 22-36	10-20%
Boric Acid	XN; R 21/22-36/37/38 Einecs: 233-139-2	5-10%

### **Section 3 – Hazards Identification**

- **Hazard description:**  
Not applicable
- **Information pertaining to particular dangers for man and environment**  
Not applicable
- **Classification System**  
The classification was made according to the latest editions of the EU- lists, and expanded upon from company and literature data.
- **NFPA RATING (scale 0-4)**  
HEALTH: 2  
FLAMMABILITY : 0  
REACTIVITY: 0

### **Section 4 – First Aid Measures**

- **General Information**  
No special measures required
- **After inhalation:**  
Supply fresh air; consult doctor in case of complaints
- **After Skin Contact:**  
Generally the product does not irritate the skin
- **After eye contact:**  
Rinse opened eye for several minutes under running water.
- **After swallowing:**  
Induce vomiting and call for medical help

### **Section 5 – Fire Fighting measures**

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective Equipment:**  
No special measures required.

## **Section 6 – Accidental release measures**

- **Person – related safety precautions:**  
Not required
- **Measures for environmental protection:**  
Dilute with plenty of water  
Do not allow to enter sewers/surface or ground water
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Additional information:**  
No dangerous substances are released

## **Section 7 – Handling and Storage**

- **Handling**
- **Information for safe handling:**  
No special measures required  
No special precautions are necessary if used correctly
- **Information about protection against explosions and fires:**  
No special measures required
- **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:**  
None
- **Storage Class**
- **Class according to regulation on flammable liquids:**  
Void

## **Section 8 – Exposure controls and personal protection**

- **Additional information about design or technical system:**  
No further data; see item 7.
- **Components 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 that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed
- **Breathing equipment:**  
None
- **Protection of hands:**  
Synthetic Gloves
- **Eye protection**  
Goggles recommended during refilling

## **Section 9 - Physical and chemical properties**

- **Form:** Fluid
- **Color:** Colorless
- **Odor:** Odorless
- **Change in condition:**
- **Melting Point:** undetermined
- **Boiling point/Boiling range:** 100 degrees Celsius
- **Flash Point:** Not applicable
- **Auto Ignition:** Product is not self igniting
- **Danger of explosion:** Product does not present an explosion hazard
- **Vapor pressure:** at 20 degrees Celsius 23.0 mbar
- **Density:** Not determined
- **Solubility in/Miscibility with:**
- **Water:** Fully miscible
- **pH value:** at 20 degrees Celsius 8.3
- **Solvent Content:**
- **Organic Solvents:** 0.0%
- **Water:** 82.7%
- **Solids Content:** 17.3%

## **Section 10 – Stability and reactivity**

- **Thermal decomposition/conditions to be avoided:**  
No decomposition if used according to specifications
- **Dangerous reactions:**  
No dangerous reactions known
- **Dangerous products of decomposition:**  
No dangerous decomposition reactions known

## **Section 11 – Toxicological Information**

- **Acute toxicity:**
- **LD/Lc50 values that are relevant for classification:**

<b><u>Components</u></b>	<b><u>Type</u></b>	<b><u>Value</u></b>	<b><u>Species</u></b>
Tris (hydroxymethyl) amino methane	Oral	5900 mg/kg	rat

- **Primary irritant effect:**
  - **On the skin:** no irritant effect
  - **On the eyes:** no irritant effect
- **Sensation:**  
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 according to our experience and the information provided to us.

## **Section 12- 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.

### **Section 13- Disposal Considerations**

- **Product:**
- **Recommendation:**  
Hand over to hazardous waste disposers
- **Uncleaned packaging:**
- **Recommendation:**  
Disposal must be made according to official regulations
- **Recommended cleansing agent:**  
Water, if necessary with cleansing agents.

### **Section 14- Transport Information**

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

## **Section 15 – Regulations**

- **Markings according to EU guidelines**

Observe the general safety regulations when handling chemicals. The product is not subject to identification regulations under the EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

- **Hazard-determining components of labeling:**

Tris (hydroxymethyl) amino methane

Boric acid

Disodium EDTA

- **National regulations:**

- **Classification accordance to VbF:**

Void

- **Water hazard class:**

Water hazard class 1 (Self - assessment): slightly hazardous for water.

## **Section 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:** Environmental Health and Safety.

- **Contact:**

Jule, Inc.

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Milford, CT 06460 US

800-648-1772