

# Safety Data Sheet

TBE Buffer, 1X

**CAROLINA**<sup>®</sup>  
www.carolina.com

## Section 1 Product Description

**Product Name:** TBE Buffer, 1X  
**Recommended Use:** Science education applications  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

## Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

GHS Classification:

## Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Water	7732-18-5	95
TBE Buffer, 20X		5

## Section 4 First Aid Measures

### Emergency and First Aid Procedures

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**Skin Contact:** After contact with skin, wash immediately with plenty of water.  
**Ingestion:** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

## Section 5 Firefighting Procedures

**Extinguishing Media:** Use media suitable to extinguish surrounding fire.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Fire or excessive heat may produce hazardous decomposition products.  
**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide, Sodium Oxides, Nitrogen oxides, Boric Oxide

## Section 6 Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** No adverse health affects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this (M)SDS. Avoid creating and inhaling dust. Avoid creating and inhaling spray or mist. Avoid contact with skin and eyes.  
**Environmental Precautions:** Avoid breathing material. Avoid contact with skin and eyes. Absorb the liquid and scrub the area with detergent and water. Do not allow the spilled product to enter public drainage system or open waterways.

## Section 7 Handling and Storage

**Storage:** Suitable for any general chemical storage.  
**Storage Code:** Green - general chemical storage

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## Section 8

## Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Boric Acid	2 mg/m3 TWA (inhalable fraction, listed under Borate compounds, inorganic)	6 mg/m3 STEL (inhalable fraction, listed under Borate compounds, inorganic)	N/A	N/A
EDTA, Disodium Salt, Dihydrate	N/A	N/A	N/A	N/A
Sodium Hydroxide	N/A	N/A	2 mg/m3 TWA	N/A

### Control Parameters

#### Engineering Measures:

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. Good general room ventilation should be sufficient to control airborne contaminants to safe levels.

#### Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

#### Respiratory Protection:

No respiratory protection required under normal conditions of use.

#### Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available.

#### Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

#### Gloves:

Nitrile

## Section 9

## Physical Data

**Formula:** This product is a mixture.  
**Molecular Weight:**  
**Appearance:** Colorless Liquid  
**Odor:** No data available  
**Odor Threshold:** No data available  
**pH:** No data available  
**Melting Point:** = 0 C  
**Boiling Point:** 100 C  
**Flash Point:** No data available  
**Flammable Limits in Air:** No data available

**Vapor Pressure:** No data available  
**Evaporation Rate (BuAc=1):** No data available  
**Vapor Density (Air=1):** No data available  
**Specific Gravity:** No data available  
**Solubility in Water:** Soluble  
**Log Pow (calculated):** No data available  
**Autoignition Temperature:** No data available  
**Decomposition Temperature:** No data available  
**Viscosity:** 10  
**Percent Volatile by Volume:** No data available

## Section 10

## Reactivity Data

**Reactivity:** No data available  
**Chemical Stability:** Stable under normal conditions.  
**Conditions to Avoid:** None known.  
**Incompatible Materials:** Water-reactive materials, Acetic anhydride, Alkali Carbonates, Hydroxides, Alkali and Alkaline Metals, Strong oxidizing agents  
**Hazardous Decomposition Products:** Carbon dioxide, Carbon monoxide, Sodium Oxides, Nitrogen oxides, Boric Oxide  
**Hazardous Polymerization:** Will not occur

## Section 11

## Toxicity Data

**Symptoms (Acute):** No data available  
**Delayed Effects:** No data available

**Acute Toxicity:**  
**Chemical Name**

**CAS Number**

**Oral LD50**

**Dermal LD50**

**Inhalation LC50**

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Water	7732-18-5	Oral LD50 Rat 90000 mg/kg
Boric Acid		Oral LD50 Rat 2660 mg/kg
EDTA, Disodium Salt, Dihydrate		Oral LD50 Rat 2000 mg/kg

## Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Boric Acid		Listed	Not listed	Not listed
EDTA, Disodium Salt, Dihydrate		Not listed	Not listed	Not listed
Sodium Hydroxide		Not listed	Not listed	Not listed

## Chronic Effects:

<b>Mutagenicity:</b>	No evidence of a mutagenic effect.
<b>Teratogenicity:</b>	No evidence of a teratogenic effect (birth defect).
<b>Sensitization:</b>	No evidence of a sensitization effect.
<b>Reproductive:</b>	No evidence of negative reproductive effects.
<b>Target Organ Effects:</b>	
<b>Acute:</b>	See Section 2, Toxic effects are amplified in infants.
<b>Chronic:</b>	Not listed as a carcinogen by IARC, NTP or OSHA., Reproductive systems

## Section 12

## Ecological Data

<b>Overview:</b>	This material is not expected to be harmful to the ecology. Keep out of waterways.
<b>Mobility:</b>	No data
<b>Persistence:</b>	Dissolved into water, Photodegradation
<b>Bioaccumulation:</b>	No data
<b>Degradability:</b>	No data
<b>Other Adverse Effects:</b>	No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
Boric Acid		48 HR EC50 DAPHNIA MAGNA 115 - 153 MG/L
EDTA, Disodium Salt, Dihydrate		
Sodium Hydroxide		Aquatic LC50 (96h) Rainbow Trout 45.4 MG/L

## Section 13

## Disposal Information

<b>Disposal Methods:</b>	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
<b>Waste Disposal Code(s):</b>	Not Determined

## Section 14

## Transport Information

<b>Ground - DOT Proper Shipping Name:</b> Not regulated for transport by US DOT.	<b>Air - IATA Proper Shipping Name:</b> Not regulated for air transport by IATA.
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## Section 15

## Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Boric Acid		No	No	No	No	No
EDTA, Disodium Salt, Dihydrate		No	No	No	No	No
Sodium Hydroxide		No	No	No	No	No

# Safety Data Sheet

## Section 16

## Additional Information

Revised: 12/08/2014

Replaces: None

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

### Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health