



Issuing Date: 26-Dec-1997

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Rev. 6

1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND THE COMPANY/UNDERTAKING

Product Name: 10X TBE Buffer Pouch
Product Code: IB01020
Recommend Use: For further manufacturing use only
Not for human or animal drug use
Used in DNA electrophoresis
Company: IBI SCIENTIFIC
7445 Chavenelle Road
Dubuque, IA 52002
Emergency Tele. Number: 3E Company (Acct# 9027) 1-800-451-8346 / (001) 760-602-8703
Company Tele. Number: 1-800-253-4942 / (001) 563-690-0484
E-Mail Address: info@ibisci.com

2. HAZARDOUS IDENTIFICATION

GHS – Classification

Classification: This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Toxicity – Inhalation (Dust/Mists)	Category 2
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Reproductive Toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3

Signal Word: Danger



Appearance: White
Physical State: Powder
Odor: No information available

Hazard Statements: H315-Causes skin irritation * H319-Causes serious eye irritation * H330-Fatal if inhaled
* H360-May damage fertility or the unborn child * H335-May cause respiratory irritation
* H336-May cause drowsiness or dizziness

Precautionary Statements: P201-Obtain special instructions before use * P202-Do not handle until all safety precautions have been read and understood * P280-Wear protective gloves/protective clothing/eye protection/face protection * P260-Do not breathe

dust/fume/gas/mist/vapors/spray * P271-Use only outdoors or in well-ventilated area * P284-Wear respiratory protection * P264-Wash face, hands, and any exposed skin thoroughly after handling * P308+P313-IF EXPOSED OR CONCERNED: Get medical advice/attention * P305+P351+P338-IF IN EYES-Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing * P337+P313-IF EYE IRRITATION PERSISTS: Get medical advice/attention * P302+P352-IF ON SKIN: Wash with plenty of water and soap * P332+P313-IF SKIN IRRITATION OCCURS: Get medical advice/attention * P362-Take off contaminated clothing and wash it before reuse * P304+P340-IF INHALED: Remove person to fresh air and keep comfortable for breathing * P310-Immediately call a POISON CENTER or doctor * P405-Store locked up * P403-Store in well-ventilated place * P233-Keep container tightly closed * P501-Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified: Not regulated

Other Information: May be harmful if swallowed
Toxic to aquatic life with long lasting effects
Harmful to aquatic life

Unknown Acute Toxicity: 0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name:	<u>Boric Acid</u>	<u>EDTA, Disodium dehydrate</u>	<u>Tris</u>
EC No.:	EEC No. 233-139-2	EEC No. 200-449-4	EEC No. 201-064-4
REACH Reg. No.:	Not Available	Not Available	Not Available
CAS No.:	10043-35-3	6381-92-6	77-86-1
Weight %:	1 – 5	20 – 40	60 - 65
Classification:	-	-	-

4. FIRST AID MEASURES

Eye Contact:	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact:	Wash off immediately with soap and plenty of water, removing all contaminated clothes and shoes.
Inhalation:	Move to fresh air. If not breathing, give artificial respiration.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth.
Notes to Physician:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flammable Properties:	Not flammable
Flash Point:	Not determined
Suitable Extinguishing Media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Hazardous Combustion Products:	Carbon oxides, Nitrogen oxides (NOx)
Explosion Data	
Sensitivity to Mechanical Impact:	Not sensitive
Sensitivity to Static Discharge:	Not sensitive
Protective Equip. & Precautions for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equiv.) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Ensure adequate ventilation, especially in confined areas.
Methods for Containment:	Prevent further leakage or spillage, if safe to do so.
Methods for Cleaning Up:	Avoid dust formation. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Handling:	Handle in accordance with good industrial hygiene and safety practice. Hygroscopic.
Storage:	Keep container tightly closed in a dry, cool, and well-ventilated place. Hygroscopic. Protect from moisture.
Incompatible Products:	Strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name:	<u>Boric Acid</u>	<u>EDTA, Disodium dehydrate</u>	<u>Tris</u>
ACGIH TLV:	STEL = 6mg/m ³ TWA = 2mg/m ³	-	-
OSHA PEL:	-	-	-
NIOSH IDLH:	-	-	-
Engineering Measures:	Showers, Eyewash Stations, Ventilation Systems		
<u>Personal Protective Equipment</u>			
Eye/Face Protection:	Avoid contact with eyes. Safety glasses with side shields.		
Skin & Body Protection:	Wear protective gloves/clothing.		
Respiratory Protection:	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.		
Hygiene Measures:	Handle in accordance with good industrial hygiene and safety practice.		

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White powder
Odor:	No information available
Odor Threshold:	No information available
Decomposition Temp. °C:	No information available
Freezing Point:	No information available
Initial Boiling Point:	No information available
Physical State:	Powder
pH:	No data available
Flash Point:	Not determined
Autoignition Temp. °C:	No data available
Boiling Point/Range:	No data available
Melting Point/Range:	No data available
Flammability Limits (Air):	<u>Upper</u> -No data available * <u>Lower</u> -No data available
Explosion Limits	No information available
Explosive Properties:	No information available
Oxidizing Properties:	No information available
Evaporation Rate:	No information available
Vapor Density:	No data available
Specific Gravity:	No data available
Solubility:	No information available
Partition Coefficient (n-octanol/water):	No data available
Viscosity:	No information available

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions
Incompatible Products:	Strong oxidizing agents
Conditions to Avoid:	Protect from moisture
Hazardous Decomposition Products:	Carbon oxides, Nitrogen oxides (NO _x)
Hazardous Polymerization:	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information:	Irritating to eye, skin, and respiratory system. Inhalation – May be fatal if inhaled Eye Contact – Severely irritating to eyes Skin Contact – Irritating to skin Ingestion – There is no data available for this product		
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Chemical Name:	<u>Boric Acid</u>	<u>EDTA, Disodium dehydrate</u>	<u>Tris</u>
LD50 Oral:	2660mg/kg (Rat)	1700mg/kg (rat)	5900mg/kg (Rat)
LD50 Dermal:	2000mg/kg (Rabbit)	-	-
LC50 Inhalation:	> 0.16mg/L (Rat) 4h	-	-

Information on toxicological effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available
Mutagenic Effect	No information available
Carcinogenicity	No information available

Chemical Name:	<u>Boric Acid</u>	<u>EDTA, Disodium dehydrate</u>	<u>Tris</u>
ACGIH:	-	-	-
IARC:	Group 2A	-	-
NTP:	-	-	-
OSHA:	-	-	-

Reproductive Toxicity:	No information available
STOT – single exposure:	No information available
STOT – repeated exposure:	No information available
Target Organ Effects:	Liver, Kidneys, Central nervous system (CNS).
Aspiration hazard:	No information available

Numerical measures of toxicity – Product Information:

Unknown Acute Toxicity: 0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document. mg/kg / mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity: 63.7% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical Name:	<u>Tris</u>
Algae/aquatic plants:	-
Toxicity to fish:	-
Crustacea:	-
Partition coefficient:	-0.757 @ 25°
Chemical Name:	<u>Boric Acid</u>
Algae/aquatic plants:	-
Toxicity to fish:	LC50 = 1020mg/L Carassius auratus (72h)
Crustacea:	EC50 = 115-153mg/L Daphnia magna (48h)
Partition coefficient:	-0.757 @ 25°C

Chemical Name:	<u>EDTA</u>
Algae/aquatic plants:	EC50 = 1.01mg/L <i>Desmodesmus subspicatus</i> (72h)
Toxicity to fish:	LC50 = 44.2 – 76.5mg/L <i>Pimephales promelas</i> (96h)
	LC50 – 34 – 62mg/L <i>Lepomis macrochirus</i> (96h)
Crustacea:	EC50 = 113mg/L <i>Daphnia magna</i> (48h)
Partition coefficient:	-0.757 @ 25°C

13. DISPOSAL CONSIDERATIONS

Water Disposal Method: Dispose of material in accordance with all federal, state, and local regulations.

Contaminated Packaging: Do not re-use empty containers. Dispose of in accordance with all federal, state, and local regulations.

California Hazardous Waste Status: Boric Acid #10043-35-3 - Toxic

14. TRANSPORT INFORMATION

IATA
Not regulated

US DOT
Not regulated

15. TOXICOLOGICAL INFORMATION

REACH Title VII Restrictions	No information available		
Chemical Name:	<u>Boric acid</u>	<u>EDTA Disodium</u>	<u>Tris</u>
Dangerous Substances:	Not applicable	Not applicable	Not applicable
Organic Solvents:	Not applicable	Not applicable	Not applicable
Harmful Substances Whose Names are to be indicated on the Label:	Not applicable	Not applicable	Not applicable
Pollution Release and Transfer Registry (Class II):	Not applicable	Not applicable	Not applicable
Pollution Release and Transfer Registry (Class I):	Not applicable	Not applicable	Not applicable
Poison and Deleterious Substances Control Law:	Not applicable	Not applicable	Not applicable
ISHA – Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying:	Not applicable	Not applicable	Not applicable
ISHA – Harmful Substances Requiring Permission:	Not applicable	Not applicable	Not applicable
Toxic Chemical Classification Listing (TCCL):	Not applicable	Not applicable	Not applicable
Toxic Release Inventory (TRI) – Group I:	Not applicable	Not applicable	Not applicable
Toxic Release Inventory (TRI) – Group II:	>=1.0%	Not applicable	Not applicable

International Inventories

TSCA:	Complies
EINECS/ELINCS:	Complies
ENCS:	Complies
IECSC:	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

U.S. Federal Regulations **SARA 313**

Section 313 of Title III of the superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemical/chemicals which are subject to the reporting requirements of the Act & Title 40 of the Code of Federal Regulations, part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

CERCLA The material, as supplied, contains one or more substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name: EDTA #60-00-4
 Hazardous Substances RQs 5000lbs
 Extremely Hazardous Sub. RQs: -
 RQ RQ 5000lbs final RQ
 RQ 2270lbs final RQ

U.S. State Regulations

California Proposition 65 This product does not contain any Proposition 65 chemicals.

Chemical Name: EDTA #60-00-4

State

Massachusetts	-
New Jersey	X
Pennsylvania	X

US EPA Label Information EPA Pesticide Registration Number: Not regulated

International Regulations

Mexico No information available

Canada No information available

WHMIS Hazard Class

D2B – Toxic materials



16. OTHER INFORMATION

Issuing Date:	26-Dec-1997
Revision Date:	6-Jun-2018
Revision Note:	Updated address and logo
Recommended Restrictions:	No information available
Disclaimer:	The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal, and release; and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the test.

End of Safety Data Sheet