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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  
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## 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**

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

**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

|                                 |                                                                                                                                                  |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal Precautions:</b>    | Ensure adequate ventilation, especially in confined areas.                                                                                       |
| <b>Methods for Containment:</b> | Prevent further leakage or spillage, if safe to do so.                                                                                           |
| <b>Methods for Cleaning Up:</b> | 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

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

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| <b>Chemical Name:</b>                       | <u>Boric Acid</u>                                                                                                                                                                                                                                                                                                       | <u>EDTA, Disodium dehydrate</u> | <u>Tris</u> |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------|
| ACGIH TLV:                                  | STEL = 6mg/m <sup>3</sup><br>TWA = 2mg/m <sup>3</sup>                                                                                                                                                                                                                                                                   | -                               | -           |
| OSHA PEL:                                   | -                                                                                                                                                                                                                                                                                                                       | -                               | -           |
| NIOSH IDLH:                                 | -                                                                                                                                                                                                                                                                                                                       | -                               | -           |
| <b>Engineering Measures:</b>                | Showers, Eyewash Stations, Ventilation Systems                                                                                                                                                                                                                                                                          |                                 |             |
| <b><u>Personal Protective Equipment</u></b> |                                                                                                                                                                                                                                                                                                                         |                                 |             |
| 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. |                                 |             |
| <b>Hygiene Measures:</b>                    | Handle in accordance with good industrial hygiene and safety practice.                                                                                                                                                                                                                                                  |                                 |             |

### 9. PHYSICAL AND CHEMICAL PROPERTIES

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

## 10. STABILITY AND REACTIVITY

|                                          |                                                   |
|------------------------------------------|---------------------------------------------------|
| <b>Stability:</b>                        | Stable under recommended storage conditions       |
| <b>Incompatible Products:</b>            | Strong oxidizing agents                           |
| <b>Conditions to Avoid:</b>              | Protect from moisture                             |
| <b>Hazardous Decomposition Products:</b> | Carbon oxides, Nitrogen oxides (NO <sub>x</sub> ) |
| <b>Hazardous Polymerization:</b>         | Hazardous polymerization does not occur.          |

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

|                      |                                                                                                                                                                                                                                       |  |  |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Product Information: | Irritating to eye, skin, and respiratory system.<br>Inhalation – May be fatal if inhaled<br>Eye Contact – Severely irritating to eyes<br>Skin Contact – Irritating to skin<br>Ingestion – There is no data available for this product |  |  |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

|                       |                     |                                 |                 |
|-----------------------|---------------------|---------------------------------|-----------------|
| <b>Chemical Name:</b> | <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

|                         |                          |
|-------------------------|--------------------------|
| <b>Sensitization</b>    | No information available |
| <b>Mutagenic Effect</b> | No information available |
| <b>Carcinogenicity</b>  | No information available |

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

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

|                        |              |
|------------------------|--------------|
| <b>Chemical Name:</b>  | <u>Tris</u>  |
| Algae/aquatic plants:  | -            |
| Toxicity to fish:      | -            |
| Crustacea:             | -            |
| Partition coefficient: | -0.757 @ 25° |

|                        |                                         |
|------------------------|-----------------------------------------|
| <b>Chemical Name:</b>  | <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:** EDTA  
 Algae/aquatic plants: EC50 = 1.01mg/L Desmodesmus subspicatus (72h)  
 Toxicity to fish: LC50 = 44.2 – 76.5mg/L Pimephales promelas (96h)  
 LC50 – 34 – 62mg/L Lepomis macrochirus (96h)  
 Crustacea: EC50 = 113mg/L Daphina magna (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**

| <b><u>REACH Title VII Restrictions</u></b>                                                     | No information available |                      |                |
|------------------------------------------------------------------------------------------------|--------------------------|----------------------|----------------|
|                                                                                                | <u>Boric acid</u>        | <u>EDTA Disodium</u> | <u>Tris</u>    |
| Chemical Name:                                                                                 | Not applicable           | Not applicable       | Not applicable |
| 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**