

**Material Safety Data Sheet**  
**Version No.: 1.0(Rev.date 2012-09-10)****5X TBE**

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**1. Product and Company Information**

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Product Name : 5X TBE

Recommended Use : For Research Use Only

Supply Information

○ Company : Bioneer

○ Address : 8-11 Munpyeongseo-ro, Daedeok-gu, Daejeon 34302, Republic of Korea

○ Emergency telephone number : 82-42-930-8777

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**2. Hazards Identification**

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GHS-Classification

Classification of the hazardous chemical

Skin corrosion/Skin irritation : Category 2

Serious eye damage/eye irritation: Category 2

Reproductive toxicity : Category 1B

Label elements, including precautionary statements

Pictogram



Signal word      Dangerous

Hazard statements

H315 Causes skin irritation.    H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H360 May damage fertility or the unborn child.

Precautionary statements

P201 Obtain special instructions before use.

P302+P350 If on skin, Gently wash with plenty of soap and water.

P305+P351+P338 If in eye, Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

P304+P341 If inhaled, If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

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### 3. Composition/Information on ingredients

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Chemical name	Synonyms	CAS No.	Weight(%)
Tris	Trizma base	77-86-1	1~10%
Boric acid		10043-35-3	1~10%
EDTA		6381-92-6	1~10%
Water		7732-18-5	50~70%

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### 4. Composition/Information on ingredients

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- . Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes.
  - . Skin Contact : Rinse thoroughly with plenty of water for at least 15 minutes.
  - . Inhalation : Move to fresh air. If breathing is difficult, give oxygen.
  - . Ingestion : Never give anything by mouth to an unconscious person.
  - . The most important acute and delayed symptoms/effects : Not information available
  - . Notes to Physician : Not information available.
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### 5. Fire-fighting measures

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- . Suitable Extinguishing Media : Water-spray, Dry chemical, CO2.
  - . Flammable Properties : No information available .
  - . Protective Equipment and Precautions for Firefighters : As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.
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### 6. Accidental release measures

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- . Personal Precautions : Wear respirator, safety goggles, boots, thick gloves.
  - . Environmental precautions : Absorb the sand or vermiculite. Store in a sealed container for disposal.
  - . Methods for cleaning up : After collect absorbed by inert material, Dispose in the designated waste. Wash contaminated area.
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### 7. Handling and Storage

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- . Handling : Store in a cool and well-ventilated area.
  - . Storage : Store at room temperature. Protect from moisture.
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### 8. Exposure control/personal protection

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- . Chemical exposure limits, biological exposure limits etc. : No data available
  - . Engineering Measures : Not information available
  - . Personal Protective Equipment  
Respiratory Protection : Wear respiratory mask approved by KOSHA(Korea Occupation Safety Health Agency).
  - Eye/Face Protection : Wear Chemical Safety protective goggle or glasses approved by KOSHA(Korea Occupation Safety Health Agency).
  - Skin Protection : Wear Chemical Safety gloves approved by KOSHA(Korea Occupation Safety Health Agency).
  - Body Protection : Wear protective clothes approved by KOSHA(Korea Occupation Safety Health Agency).
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## 9. Physical and chemical properties

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- . Appearance : Liquid, transparentness
  - . Odor : No data available
  - . Odor threshold : No information available
  - . pH : No information available
  - . Melting point/Freezing point : No information available
  - . Initial boiling point/range : No information available
  - . Flash point : No information available
  - . Evaporation rate : No information available
  - . Flammability (Solid,Liquid) : No information available
  - . Flammability Limits upper/lower : No information available
  - . Vapor pressure : No information available
  - . Solubility : No information available
  - . Vapor density : No information available
  - . Viscosity : No information available
  - . n octanol/water : No information available
  - . Autoignition temperature : No information available
  - . Decomposition temperature : No information available
  - . Specific gravity : No information available
  - . Molecular weight : No information available
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## 10. Stability and Reactivity

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- . Stability : Stable under recommended storage conditions.
  - . Possibility of harmful response : No information available
  - . Conditions to avoid (electric discharge, impact, vibration etc) : Keep away from moisture.
  - . Material to avoid : No information available
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. Hazardous Decomposition Products : Carbon oxides,Nitrogen oxides

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## 11. Toxicological information

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. Principle routes of exposure

Respiratory : can be harmful if inhaled.

Ingestion : can be harmful if swallowed.

Eye/Skin : Harmful in contact with skin. Can be caused skin irritation.

. Health effects

Acute toxicity : No data available

Skin corrosive or irritant : No data available.

Serious eye damage or irritant : No data available.

Respiratory irritability : No data available

Skin irritability : No data available

Carcinogenicity : No data available

Germ cell mutagenicity : No data available

Reproductive toxicity : No data available

Specific target organ toxicity (single exposure) : No data available

Specific target organ toxicity (repeated exposure) : No data available.

Aspiration Hazard : No data available

. Numerical measures of toxicity(Acute toxicity estimates etc) : No data available

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## 12. Ecological Information

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. Ecotoxicity effects: No data available

. Residual and degradability : No data available

. Bioaccumulation : No data available

. Mobility : No data available

. Other harmful effects : No data available

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## 13. Disposable considerations

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. Waste disposal method : No data available.

. Contaminated packaging : Dispose contents and vessel in accordance with regulation by the waste disposal law.

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## 14. Transport Information

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. UN Number : No data available

. UN Proper Shipping Name : No data available

. Transport hazard class : No data available

. Packing group : No data available

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- . Marine pollutant : No data available
  - . The special vehicle Safety measures : No data available
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## 15. Regulatory information

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- . Regulation by Industrial safety and health act : Not information available
  - . Regulation by toxic chemicals control act : Not information available
  - . Regulation by Safety control of dangerous substance act : Not information available
  - . Regulation by the waste control act : Not information available
  - . Regulation by other domestic and foreign regulatory : Not information available
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## 16. Other information

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Bioneer Corporation makes no warranty or representation to its completeness, accuracy or currency.

This material is intended for use by persons with pertinent technical skills and at their discretion and risk. It is the responsibility of the user to determine the product's suitability for its intended use, the product's safe use, and the product's proper disposal. Disposal of hazardous material may be subject to federal, state or local laws or regulations.

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