

Material Safety Data Sheet
Version No.: 3.0 (Rev. date: 2022-09-29)**5X TBE**

1. Product and company identification

- A. Product Name: 5X TBE
- B. Recommended Use: Research Use Only
- C. Supply Information
 - Company: Bioneer
 - Address: 8-11, Munpyeongseo-ro, Daedeok-gu, Daejeon 306-220, Republic of Korea
 - Emergency telephone number: +82-42-930-8777

2. Hazards identification

- A. Classification of the substance or mixture
Reproductive toxicity, Category 1B H360

- B. Label elements

- Hazard pictograms



- Signal word

Danger

- Hazard statements

H360 May damage fertility or the unborn child.

- Precautionary statements

Precaution:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear eye protection, protective clothing, protective gloves.

Treatment:

P308+P313 IF exposed or concerned: Get medical advice, medical attention.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container according to waste related regulations.

C. Hazards – Other hazards which do not result in classification – Hazard Risk

Not applicable

3. Composition/information on ingredients

Chemical name	Synonyms	CAS No.	Weight (%)
Trometamol		77-86-1	< 10%
Boric acid		10043-35-3	< 10%

4. First aid measures

A. First-aid measures after eye contact

Rinse eyes with water as a precaution.

B. First-aid measures after skin contact

Wash skin with plenty of water.

C. First-aid measures after inhalation

Remove person to fresh air and keep comfortable for breathing.

D. First-aid measures after ingestion

Call a poison center or a doctor if you feel unwell.

E. Other medical advice or treatment

Treat symptomatically.

5. Fire-fighting measures

A. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, dry powder, foam, carbon dioxide.

Unsuitable extinguishing media: No data available

B. Special hazards arising from the substance or mixture

Fire hazard: Flammable liquid and vapor.

C. Special protective equipment and precautions for fire-fighters

Protection during firefighting:

Do not attempt to take action without suitable protective equipment.

Self-contained breathing apparatus.

Complete protective clothing.

6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures

Only qualified personnel equipped with suitable protective equipment may intervene.

Do not attempt to take action without suitable protective equipment.

Dispose of materials or solid residues at an authorized site.

B. Environmental precautions and protective procedures

Avoid release to the environment.

Notify authorities if product enters sewers or public waters.

C. Methods and material for containment and cleaning up

Take up liquid spill into absorbent material.

Notify authorities if product enters sewers or public waters.

7. Handling and storage

A. Precautions for safe handling

Precautions for safe handling

Ensure good ventilation of the work station.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear personal protective equipment.

Hygiene measures

Separate working clothes from town clothes. Launder separately.

Do not eat, drink or smoke when using this product.

Always wash hands after handling the product.

B. Conditions for safe storage

Storage conditions

Store locked up.

Store in a well-ventilated place.

Keep cool.

8. Exposure controls / personal protection

A. Occupational Exposure Limits

No data available

B. Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Environmental exposure controls: Avoid release to the environment.

C. Personal protection

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment

Eye protection: Safety glasses

Hand protection: Protective gloves

Skin and body protection: Wear suitable protective clothing

9. Physical and chemical properties

- A. Appearance: Liquid
 - B. Odor: No data available
 - C. Odor threshold: No data available
 - D. pH: No data available
 - E. Melting / freezing point: Not applicable / No data available
 - F. Initial boiling point and boiling range: No data available
 - G. Flash point: 29°C
 - H. Evaporation rate: No data available
 - I. Flammability (solid, gas): Not applicable
 - J. Upper / lower flammability or explosive limits: No data available
 - K. Vapor pressure: No data available
 - L. Solubility: No data available
 - M. Vapor density: No data available
 - N. Relative density: No data available
 - O. Partition coefficient n-octanol/water: No data available
 - P. Auto-ignition temperature: No data available
 - Q. Decomposition temperature: No data available
 - R. Viscosity: No data available
 - S. Molecular mass: No data available
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10. Stability and Reactivity

- A. Chemical stability and Possibility of hazardous reactions
The product is non-reactive under normal conditions of use, storage and transport.
Stable under normal conditions.
No dangerous reactions known under normal conditions of use.
 - B. Conditions to avoid
None under recommended storage and handling conditions.
 - C. Incompatible materials
No data available
 - D. Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.
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11. Toxicological information

- A. Information on exposure routes
Oral: Not classified
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Skin and eyes contact: Not classified

Inhalation: Not classified

B. Health hazards

Acute toxicity (oral): Not classified

Acute toxicity (dermal): Not classified

Acute toxicity (inhalation): Not classified

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: Not classified

Respiratory sensitization: Not classified

Skin sensitization: Not classified

Carcinogenicity: Not classified

Mutagenicity: Not classified

Reproductive toxicity: May damage fertility or the unborn child

STOT–single exposure: Not classified

STOT–repeated exposure: Not classified

Aspiration hazard: Not classified

12. Ecological information

A. Exotoxicity

Ecology – general: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute): Not classified

Hazardous to the aquatic environment, long-term (chronic): Not classified

B. Persistence and degradability

No data available

C. Bioaccumulative potential

No data available

D. Mobility in soil

No data available

E. Other adverse effects

Ozone: Not classified

Other adverse effects: No additional information available

13. Disposal considerations

- A. Disposal method
Dispose of contents/container in accordance with licensed collector's sorting instructions.
- B. Disposal precaution
No data available

14. Transport information

UN RTDG	ADR	IMDG	IATA
A. UN number			
Not regulated for transport			
B. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
C. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
D. Packaging group			
Not applicable	Not applicable	Not applicable	Not applicable
E. Marine pollutant			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

- F. Special precautions for user: No data available

15. Regulatory information

- A. Occupational Safety and Health Act
 - Hazardous Substances Prohibited for Manufacturing: Not applicable
 - Hazardous Substances Requiring Permission: Not applicable
 - Threshold Limit Values Chemicals: Not applicable
 - Hazardous Substances Below Permissible Level: Not applicable
 - Hazardous Substances Subject to Working Environment Measurement: Not applicable
 - Hazardous Substances Subject to Workers Requiring Health Examination: Not applicable
 - Hazardous Substances Subject to Control: Not applicable
 - Substance Subject to PSM Submission: Not applicable
- B. Chemicals Control Act
 - Toxic Chemicals: Applicable
 - Prohibited Chemicals: Not applicable

Restricted Chemicals: Not applicable

Substance requiring preparation for accidents: Not applicable

C. ACT ON REGISTRATION, EVALUATION, ETC. OF CHEMICALS (K-REACH)

Korea Existing Chemicals Inventory (KECI): Applicable

Priority Existing Chemical ('PEC') – subject to registration: Applicable

Priority Control Substances (Korea): Applicable

CMR Substances (Korea): Not applicable

D. Safety Control of Dangerous Substances Act

Safety Control of Dangerous Substances Act: Applicable

E. Wastes Control Act

Hazardous Substances in Designated wastes: Not applicable

Types of wastes: No data available

F. Other Domestic and International Regulatory Information

Domestic

Persistent Organic Pollutants(POPs) Control Act: Not applicable

Ozone Depleting Substances(ODS): Not applicable

International (EU Regulatory Information)

EU Candidate list (SVHC): Contains a substance on the REACH candidate list

EU authorization list (REACH Annex XIV): Contains no REACH Annex XIV substances

EU restriction list (REACH Annex XVII): Not applicable

US Regulatory Information

CERCLA Section 103 (40CFR302.4): Not applicable

EPCRA Section 302 (40CFR355.30): Not applicable

EPCRA Section 304 (40CFR355.40): Not applicable

EPCRA Section 313 (40CFR372.65): Not applicable

International agreements

No data available

16. Other information

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.
