Safety data sheet

TBE 10x Electrophoresis Buffer

Product name TBE 10x Electrophoresis Buffer	Catalog no. TBE500, TBE5005, TBE1000, TBE10005
Synonyms -	Previous revision date 28 January 2025
CAS no. -	Document version / date v2 / 24 October 2026

01 PRODUCT AND COMPANY IDENTIFICATION

Product identifier	TBE 10x Electrophoresis Buffer
Product code	TBE500, TBE5005, TBE1000, TBE10005
CAS number	-
EC number	-
Recommended use	For research use only. Not intended for diagnostic or therapeutic use.
Supplier	EcoTech Biotechnology
Website	www.ecotechbiotech.com
Address	Universite Mah. İpekyolu Cad. Ata Teknokent Sitesi B Blok No: Z10 Yakutiye Erzurum Türkiye
Telephone	0090 544 327 34 97
SDS contact	info@ecotechbiotech.com
Emergency telephone	0090 544 327 34 97
Available	Monday-Saturday/08:00-20:00/GMT+3
Languages	Turkish/English
Outside these hours	Contact: info@ecotechbiotech.com

02 HAZARDS IDENTIFICATION

Classification	Not classified as hazardous under the Globally Harmonized System (GHS).
Label elements	Not classified. No GHS pictograms or signal word required.
Symbols / pictograms	None
Signal word	None
Hazard statements	None.
Precautionary statements - Prevention	Wash hands thoroughly after handling.
Precautionary statements - Response	If exposed or concerned, seek medical advice.
Other hazards	NFPA: Health 1; Flammability 0; Stability 0.

Composition & response

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03 COMPOSITION / INFORMATION ON INGREDIENTS

Product name	TBE 10x Electrophoresis Buffer
Synonyms	-
Concentration	10x
Formula	-
Molecular weight	-
Mixture statement	Water (CAS 7732-18-5): 70–90% w/w. Boric acid (CAS 10043-35-3): <5.5% w/w. Tris Base (CAS 77-86-1): 10–15% w/w. EDTA disodium salt dihydrate (CAS 6381-92-6): <1% w/w.

04 FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact	Rinse eyes immediately with plenty of water, including under eyelids, for at least 15 minutes. Remove contact lenses if easy to do. Seek medical advice if symptoms persist.
Skin contact	Wash thoroughly with water for at least 15 minutes. Remove contaminated clothing and wash before reuse. Seek advice if irritation persists.
Inhalation	Move to fresh air. Seek medical advice if symptoms persist; provide breathing assistance by qualified personnel if needed.
Ingestion	Rinse mouth. Do not induce vomiting. Give water only if conscious and obtain medical advice if needed.
Self-protection of first aider	Wear appropriate protective equipment and avoid direct contact during first aid.
Most important symptoms / effects	No information available.
Immediate medical attention / treatment	Treat symptomatically.

05 FIREFIGHTING MEASURES

Suitable extinguishing media	Use firefighting measures appropriate to the surrounding conditions.
Unsuitable extinguishing media	None specified.
Special hazards arising from the substance or mixture	Specific hazards: No information available. Hazardous combustion products may include carbon oxides.
Explosion data	Mechanical impact and static discharge sensitivity: No information available.
Advice for firefighters	Wear a self-contained breathing apparatus and full protective gear when necessary.

Safe use & protection

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06 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use appropriate protective equipment. Avoid contact with skin and eyes. Keep unnecessary personnel away.
Environmental precautions	Prevent entry to drains, waterways and confined areas. Contain leaks if safe to do so.
Methods and materials for containment and cleaning up	Absorb using inert absorbent material, collect in labeled closed containers and clean the affected area. Prevent drainage of spilled material.
Reference to other sections	Refer to Sections 8 and 13.

07 HANDLING AND STORAGE

Precautions for safe handling	Ensure good ventilation and use personal protective equipment. Avoid inhalation of mist/aerosols and contact with eyes or skin.
Conditions for safe storage	Keep tightly closed in a cool, dry, well-ventilated area. Recommended storage temperature: 22–25 °C.
Container labeling	Store in clearly labeled containers away from incompatible materials.

08 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

No substances with established occupational exposure limits were identified.

8.2 Exposure controls

Engineering measures	Ensure adequate ventilation, especially in confined areas.
Hygiene measures	Handle with good laboratory hygiene; do not eat, drink or smoke. Wash hands after handling.
Eye / face protection	Wear safety glasses with side shields conforming to EN 166.
Hand protection	Wear appropriate chemical-resistant protective gloves; inspect gloves before use.
Skin and body protection	Wear a laboratory coat or appropriate protective clothing.
Respiratory protection	Use suitable respiratory protection if ventilation is inadequate.

Material properties

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09 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Odor	Odorless
Odor threshold	No data available
pH	8.3
Melting point / freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	1
Flammability (solid, gas)	No data available
Upper / lower flammability or explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Relative density	1.16
Solubility(ies)	No data available
Partition coefficient: n-octanol / water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

10 STABILITY AND REACTIVITY

Reactivity	No specific reactivity expected under ordinary conditions.
Chemical stability	Stable in a cool, dry place under recommended conditions.
Possibility of hazardous reactions	No hazardous reactions expected during normal handling.
Conditions to avoid	Avoid extreme temperatures and direct sunlight.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides may be formed on decomposition.

Health & environment

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11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Boric acid: LD50 oral (rat) 3,450 mg/kg; LD50 dermal (rabbit) 2,000 mg/kg; LC50 inhalation (rat, 4 h) >2.12 mg/L.
Skin corrosion / irritation	No skin corrosion / irritation test data available.
Serious eye damage / eye irritation	Product causes serious eye damage.
Carcinogenicity	None of the listed ingredients is identified as carcinogenic.
Reproductive toxicity	No data available
STOT - SE	No data available
STOT - RE	No data available
Aspiration hazard	No data available

11.2 Potential health effects

Ingestion: May be harmful if swallowed.
Inhalation: May cause respiratory tract irritation.
Skin: May cause irritation.
Eyes: Causes serious eye irritation.

11.3 Additional information

No additional information available.

12 ECOLOGICAL INFORMATION

Ecotoxicity	Not considered harmful to aquatic organisms; environmental impact is not fully investigated. Boric acid: LC50 75 mg/L (Limanda limanda, 72 h); 133 mg/L (Daphnia, 48 h).
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Results of PBT and vPvB assessment	PBT/vPvB assessment not available.

13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Dispose of through an authorized waste disposal service in accordance with applicable local and national regulations.
Contaminated packaging	Dispose of as unused product. Do not reuse empty containers.

Transport & reference

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14 TRANSPORT INFORMATION

Mode	UN no.	UN proper shipping name	Hazard class	Packing group	Environmental hazards
DOT (US)	-	Not regulated for transport.	-	-	No transport environmental hazard indicated.
IMDG	-	Not regulated for transport.	-	-	No transport environmental hazard indicated.
IATA	-	Not regulated for transport.	-	-	No transport environmental hazard indicated.

Special precautions for user	No data available.
Transport in bulk (MARPOL / IBC)	Not applicable.

15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation	REACH Regulation (EC) No. 1907/2006; national and international chemical inventory and chemical notification obligations should be assessed as applicable. SARA 302/313 and Clean Water Act reporting are not indicated for this product.
Environmental hazards	Environmental hazards: No special transport environmental hazard indicated.
Chemical Safety Assessment	No chemical safety assessment has been carried out.

16 OTHER INFORMATION

Key to abbreviations and acronyms

STOT-SE	Specific Target Organ Toxicity - Single Exposure
STOT-RE	Specific Target Organ Toxicity - Repeated Exposure
PBT	Persistent Bioaccumulative and Toxic
vPvB	very Persistent very Bioaccumulative and toxic
ADR	European Agreement concerning the international carriage of Dangerous goods by Road
CAS	Chemical Abstracts Service
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime code for Dangerous Goods
REACH	Registration, Evaluation, Authorization and restriction of Chemicals
RID	Regulations concerning the International transport of Dangerous goods by rail