MSDS

Material Safety Data Sheet

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Classification according to Regulation (EC) No. 1272/2008 [CLP]

1. Product and Company Identification

Product Name	**HIGH-Q™ TBE BUFFER 10x pH 8.3**
Product References	TBB0348 (1 L) | TBB0349 (4 x 1L)
Brand	TIARIS BIOSCIENCES
Manufacturer/ Supplier	Tiaris Biosciences SL Parque Tecnológico Rabanales 21, Edificio Aldebarán, Calle Astrónoma Cecilia Payne s/n. 14014. Córdoba, España Phone: +34 681 867 714 | mailto: info@tiarisbiosciences.com web: www.tiarisbiosciences.com
Emergency Telephone	900-868538 (CHEMTREC Spain) | +34 931 768 545 (CHEMTREC International)

2. Hazards Identification

2.1. Classification According to Regulation (EC) N°1272/2008 (EU-GHS/CLP)

H315 Causes skin irritation (Category 2).

H319 Causes serious eye irritation (Category 2A)

H335 May cause respiratory irritation (Category 1)

H360 May damage fertility. May damage the unborn child (Category 1B).

H412 Harmful to aquatic life with long-lasting effects (Category 3).

2.2. Label Elements and Precautionary Statements

Pictogram

Signal Word

DANGER

P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing mist or vapors.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Ecological Information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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Toxicological Information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

3. Composition / Information on Components

Aqueous solution of buffer salts (EDTA < 1%) composed by:

Component	CAS Number	EC Number	Weight (%)	Classification according to Regulation (EC) No.1272/2008 [CLP]
Tris (Trometamol; Tris(hydroxymethyl) aminomethane	77-86-1	201-064-4	12	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) SROT SE 3 (H335)
Boric Acid	10043-35-3	233-139-2	2.75	Repr. 1B (H360)
EDTA Disodium	205-358-3	6381-92-6	<1	Acute Tox. 4 (H332)
Water	7732-18-5	231-791-2	80-85	-

4. First-Aid Measures

The principal hazards from TBE Buffer concentrate 10x are skin and eye contact.

Inhalation	Remove to fresh air.
Skin Contact	Take off immediately all contaminated clothing. Rinse skin with water/ shower.
Eye Contact	Remove contact lenses. Flush with plenty of water.
Ingestion	Rinse out mouth with water, then drink plenty of water. Do not induce vomiting. Seek medical help immediately.
Notes to Physician	Not information available. Treat symptomatically.

5. Fire Fighting Measures

Extinguish Media	
Suitable Extinguish Media	Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguish Media	No information available.
Special hazards during fire fighting	Thermal decomposition can lead to the release of irritating gases and vapours.
Advice for firefighters	In the event of fire, wear self-contained breathing apparatus. Ambient fire may liberate hazardous vapours and irritating gases.

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6. Accidental Release Measures

Personal Precautions, protective equipment and emergency procedures	Ensure adequate ventilation. Use personal protection equipment.
Environmental Precautions	Prevent product from entering drains. If it enters drains, it should be washed away with plenty of water.
Methods and Material for Containment and Cleaning up	Soak up the spills with inert absorbent material. Wash away any residue with plenty of water.

7. Handling and Storage

Advice on protection against fire and explosion	Normal measures for preventive fire protection.
Precautions for Safe Handling	Ensure good ventilation. Wash thoroughly after handling. Wash hands before eating. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.
Conditions for Safe Storage, Including Any Incompatibilities	Tightly closed. Store in a well-ventilated place Do not refrigerate the concentrate, although diluted TBE should be stored at 2-8°C
Specific End Use(s)	For research use only

8. Exposure Control/ Personal Protection

Contains no substances with occupational exposure limit values.

Personal Protective Equipment:

Respiratory Protection

Not required.

Hand Protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and Body Protection Impervious Clothing.

Wear appropriate protective gloves and a lab coat to prevent skin exposure.

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9. Physical and Chemical Properties

Appearance:	Colorless liquid
Form:	Liquid
Colour:	Colorless
Odour:	Odourless
pH (Value):	8.3 ± 0.05
Boiling Point:	> 100 °C
Melting Point:	No data available
Flash Point:	Not applicable
Flammable Limits:	Not applicable
Auto Ignition Temperature:	No data
Explosive Properties:	No data
Oxidising Properties:	None
Vapour Pressure (mm Hg):	No data
Density (g/ml):	~ 1.05 g/ mL
Solubility (Water):	Soluble
Solubility (Other):	No data available
Partition Coefficient:	No data available

10. Stability and Reactivity

Possibility of Hazardous Reaction:	None in normal use.
Chemical Stability:	The product is chemically stable under standard ambient conditions (room temperature)
Hazardous Decomposition Product(s):	Nitrogen oxides, carbon monoxide, carbon dioxide.
Conditions to avoid:	Do not freeze or refrigerate. Avoid excess heat.
Incompatible Materials:	Strong oxidizing agents.

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11. Toxicology Information

Acute toxicity: Non acute toxicity information is available for this mixture.

Acute oral toxicity: none known.

Acute inhalation toxicity: none known.

Acute dermal toxicity: none known

Acute toxicity individual components

Components	Oral Toxicity	Dermal Toxicity	Inhalation Toxicity
Tris	LD50 = 5900 mg/kg (Rat)	LD50> 5000 mg/kg (Rat)	Not listed
Boric Acid	LD50 = 2660 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	Not listed
EDTA	LD50 = 4500 mg/kg (Rat)	Not listed	1 mg/L (Rat)

Skin corrosion/irritation: no irritant effect.

Serious eye damage/eye irritation: irritating effect.

Respiratory or skin sensitization: no data available.

Germ cell mutagenicity: no data available.

Carcinogenicity: no data available.

Reproductive toxicity: Animal tests show thar boric acid may have toxic effect on human reproduction, but at the concentration supplied, this is not thought to be a problem.

Specific target organ toxicity – single exposure (GHS): no data available.

Specific target organ toxicity – repeated exposure (GHS): no data available.

Aspiration hazard: no data available.

12. Ecological Information

Toxicity:	No data available.
Persistence and Degradability:	Biodegradable.
Bioaccumulative Potential	Not expected to bioaccumulate.
Mobility in Soil:	No data available.
Endocrine Disrupting Effects:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
PBT and vPvB Assesment	Not applicable.
Other Adverse Effect:	None known.

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13. Disposal Considerations

Waste treatment methods:

Wipe up any spills with inert absorbent material (e.g. paper towels). Dispose of them in the normal waste. Wash down a foul water drain with plenty of water.

Contaminated packaging:

Dispose of in normal waste according to local regulations.

14. Transport Information

IATA / ADR / DOT-US / IMDG:	Not Applicable.
UN number or ID number:	Not Applicable.
UN Proper Shipping Name:	Not Applicable.
Transport Hazard Class(es):	Not Applicable.
Packing Group:	Not Applicable.
Special Precautions for User:	Not Applicable.
Maritime Transport in Bulk according to IMO Instruments:	Not Applicable.

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture	None
Chemical Safety Assessment	None

Other International Inventories		
	Website	
EINECS (European Union)	https://echa.europa.eu	Not listed
TSCA (United States)	https://www.epa.gov/	Not listed
PICCS (Phipppines)	https://emb.gov.ph/	Not listed
KECL (South Korea)	http://ncis.nier.go.kr	Not listed
NZIoC (New Zealand)	https://www.epa.govt.nz/	Not listed
China	https://www.mem.gov.cn/	Not listed
	https://www.mee.gov.cn/	Not listed

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16. Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. *Tiaris Biosciences* shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.