Safety Data Sheet

Revision Date: 07-Nov-2017 24 Hour Emergency #: 1-800-255-3924

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME: Tris Acetate Buffer (10X), TAE (10X)
CATALOG NUMBER: 351-009-101, 351-009-131, 351-009-151, 351-009-491
CHEMICAL NAME: An aqueous solution of Tris base [Tris (hydroxymethyl) aminomethane], Glacial acetic acid, and EDTA (Disodium ethylenediaminetetraacetic acid dihydrate).

Company/Undertaking Identification

Quality Biological Inc.
7581 Lindbergh Drive
Gaithersburg, MD 20879
301-840-9331

2. HAZARDS IDENTIFICATION

GHS – Classification

Classification: Eye Irritant 2
Signal Word: Warning

Hazard Statements

WARNING
H315 - Causes skin irritation.
H320 - Causes eye irritation.
H335 - May cause respiratory irritation.
P260 - Do not breathe dust/fumes/gas/mist/vapors/spray.
P264 - Wash skin thoroughly after handling.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P308+P313 - IF exposed or concerned: Call a POISON CENTER or doctor/physician.

Precautionary Statements

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray P280 - Wear protective gloves/protective clothing/eye protection/face protection P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

7581 Lindbergh Drive ● Gaithersburg, MD 20879
(301) 840-9331 ● Toll Free (800) 443-9331 ● Fax (301) 840-0743
Email: customerservice@qualitybiological.com ● Web Site: www.qualitybiological.com

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	EC No.	REACH Reg. No.	CAS-No	Weight %	Classification
Tris hydroxymethyl aminomethane	**EEC No. 201-064-4**	**Not available**	**77-86-1**	**4.8**	**Xi;R36/37/38**
Glacial acetic acid	**EEC No. 200-580-7**	**Not available**	**64-19-7**	**1.1**	**R10, C; R35**
Ethylenediaminetetraacetate, tetrasodium	**-**	**Not available**	**13235-36-4**	**0.4**	**-**

4. FIRST AID MEASURES

Skin contact Immediately wash skin with copious amounts of water followed by washing with soap and copious amounts of water. Remove all contaminated clothing.

Eye contact Flush eyes with copious amounts of water for at least 15 minutes with eyelids separated and call a physician.

Ingestion Never give anything by mouth to an unconscious person

Inhalation If person is unconscious seek emergency medical attention, if person is conscious remove to fresh air and call a physician

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

General: Wear Self-Contained breathing apparatus in pressure demand, MSHA/NIOSH approved. During a fire, irritating and toxic gases may be generated by thermal decomposition.

Extinguishing Media: Use extinguishing media appropriate to surrounding fire conditions.

Autoignition Temperature: N/A

Explosion limits: Not sensitive.

Flash Point: Not flammable.

6. ACCIDENTAL RELEASE MEASURES

Use Personal Protective Equipment: Including Chemical Splash Goggles, Chemical Resistant Gloves, and appropriate clothing to prevent skin exposure. In addition, a Respiratory protection program that complies with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Spills and Leaks: Absorb spill with inert material (e.g. Vermiculite, sand, earth) then place in a suitable container. Clean up spills immediately, observing precautions in the Sections 6 and 8. Provide ventilation.

7. HANDLING AND STORAGE

Handling Handle in accordance with good industrial hygiene and safety practice.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

Exposure limits

Engineering measures Ensure adequate ventilation, especially in confined areas

Personal protective equipment

Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment
Hand protection	Protective gloves
Eye protection	Safety glasses with side-shields
Skin and body protection	Lightweight protective clothing.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice
Environmental exposure Controls	Prevent product from entering drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form Liquid

Important Health Safety and Environmental Information

Boiling point/range	°C No data available	°F No data available
Melting point/range	°C No data available	°F No data available
Flash point	°C No data available	°F No data available
Autoignition temperature	°C No data available	°F No data available
Oxidizing properties	No information available	
Water solubility	No data available	

10. STABILITY AND REACTIVITY

Stability	Stable under recommended storage conditions.
Materials to avoid	No information available
Hazardous decomposition products	Carbon oxides, Nitrogen oxides (NOx).
Polymerization	Hazardous polymerisation does not occur.
Incompatible Products	Strong oxidizing agents. Bases.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Irritating to eye, skin and respiratory system. May be harmful if swallowed.

Principle Routes of Exposure/ Potential Health effects

Eyes	No information available
Skin	No information available
Inhalation	No information available
Ingestion	No information available

Specific effects

Carcinogenic effects	No information available
Mutagenic effects	No information available
Reproductive toxicity	No information available
Sensitization	No information available

Target Organ Effects None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Glacial acetic acid		LC50= 79 mg/L Pimephales promelas 96 h LC50= 75 mg/L Lepomis macrochirus 96 h		

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations

14. TRANSPORT INFORMATION

IATA

Proper shipping name	Not classified as dangerous in the meaning of transport regulations
Hazard Class	No information available
Subsidiary Class	No information available
Packing group	No information available
UN-No	No information available

15. REGULATORY INFORMATION

International Inventories

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 chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:.

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Glacial acetic acid	64-19-7	1.1		Group II		

U.S. State Regulations

California Proposition 65
This product does not contain chemicals listed under Proposition 65

16. OTHER INFORMATION

This material is sold for research and development purposes only. It is not for any human or animal therapeutic or clinical diagnostic use. It is not intended for food, drug, household, agricultural, or cosmetic use. An individual technically qualified to handle potentially hazardous chemicals must supervise the use of this material.

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT; HOWEVER, IT MAY NOT BE ALL INCLUSIVE. THIS INFORMATION SHOULD BE USED ONLY AS A GUIDE. QUALITY BIOLOGICAL, INC. SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM THE HANDLING OR CONTACT WITH THE ABOVE PRODUCT.

End of Safety Data Sheet