Safety Data Sheet

Tris Acetate EDTA Buffer, 50X

CAROLINA®
www.carolina.com

Section 1 Product Description

Product Name:	Tris Acetate EDTA Buffer, 50X
Recommended Use:	Science education applications
Synonyms:	TAE Buffer
Distributor:	Carolina Biological Supply Company 2700 York Road, Burlington, NC 27215 1-800-227-1150
Chemical Information:	800-227-1150 (8am-5pm (ET) M-F)
Chemtrec:	800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

WARNING

Causes skin irritation. Causes serious eye irritation. Harmful to aquatic life.

GHS Classification:
Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Hazardous to the aquatic environment - Acute Category 3

Acute Toxicity Oral Contains	18.5 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Dermal Contains	26.2 % of the mixture consists of ingredient(s) of unknown toxicity
Acute Toxicity Inhalation Dust/Mist Contains	26.2 % of the mixture consists of ingredient(s) of unknown toxicity

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
Water	7732-18-5	72.8
Tris(Hydroxymethyl) Aminomethane	77-86-1	17.5
Ethylenediaminetetraacetic Acid, Disodium Salt, Dihydrate (EDTA Sodium)	6381-92-6	8.7
Acetic Acid, Glacial	64-19-7	1

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation:	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact:	IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Ingestion:	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media:	Use dry chemical, CO2 or appropriate foam.
Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Fire and/or Explosion Hazards: N/A
Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:

No adverse health affects expected from the clean-up of spilled material. Follow personal protective equipment recommendations found in Section 8 of this (M)SDS.
Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.
Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Avoid the generation of dusts during clean-up. Avoid creating and inhaling dust. Ventilate the contaminated area.
Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Vacuum or sweep up material and place in a disposal container

Section 7 Handling and Storage

Handling: Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin and eyes.
Storage: Keep container tightly closed in a cool, well-ventilated place.
Suitable for any general chemical storage.
Storage Code: Green - general chemical storage

Section 8 Protection Information

	ACGIH		OSHA PEL	
Chemical Name	**(TWA)**	**(STEL)**	**(TWA)**	**(STEL)**
EDTA, Disodium Salt, Dihydrate	N/A	N/A	N/A	N/A
Acetic Acid, Glacial	10 ppm TWA	15 ppm STEL	10 ppm TWA; 25 mg/m3 TWA	N/A

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.
Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.
Respiratory Protection: No respiratory protection required under normal conditions of use.
Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available.
Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
Gloves: Nitrile, Butyl rubber, Neoprene, Polyvinyl chloride

Section 9 Physical Data

Formula: See Section 3
Molecular Weight: N/A
Appearance: Colorless Colorless to White Powder
Odor: None
Odor Threshold: No data available
pH: No data available
Melting Point: No data available 171 C
Boiling Point: 100 C
Vapor Pressure: N/A
Evaporation Rate (BuAc=1): N/A
Vapor Density (Air=1): N/A
Specific Gravity: > 1
Solubility in Water: Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available

Flash Point: No data available
Flammable Limits in Air: N/A

Viscosity: No data available
Percent Volatile by Volume: N/A

Section 10 Reactivity Data

Reactivity: No data available
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Exposure to moisture Temperatures above the high flash point of this combustible materia in combination with sparks, open flames, or other sources of ignition.
Incompatible Materials: Water-reactive materials, Strong oxidizing agents, Acetic anhydride, Acetaldehydes, Caustics (bases), Oxidizing materials, Halogens, Carbonates
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry Inhalation, ingestion, eye or skin contact., Ingestion, skin and eye contact.
Symptoms (Acute): N/A
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
EDTA, Disodium Salt, Dihydrate	6381-92-6	Oral LD50 Rat 2000 mg/kg		
Acetic Acid, Glacial	64-19-7			INHALATION LC50 Mouse 5620 ppm

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
EDTA, Disodium Salt, Dihydrate	6381-92-6	Not listed	Not listed	Not listed
Acetic Acid	64-19-7	Not listed	Not listed	Not listed

Chronic Effects:
Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12 Ecological Data

Overview: This material is not expected to be harmful to the ecology.
Mobility: No data
Persistence: Dissolved into water, Photodegradation, Biodegradation
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
EDTA, Disodium Salt, Dihydrate	6381-92-6	
Acetic Acid, Glacial	64-19-7	Aquatic LC50 (96h) Fathead Minnow 79 MG/L Aquatic EC50 (24h) Daphnia 47 MG/L

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

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Section 14 Transport Information

Ground - DOT Proper Shipping Name:
Not Regulated for Transport

Air - IATA Proper Shipping Name:
Not regulated for air transport by IATA.

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
EDTA, Disodium Salt, Dihydrate	6381-92-6	No	No	No	No	No
Acetic Acid, Glacial	64-19-7	No	5000 lb RQ	5000 lb final RQ; 2270 kg final RQ	No	No

Section 16 Additional Information

Revised: 09/09/2015 **Replaces: 08/26/2014** **Printed: 10-29-2015**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health