

## Material Safety Data Sheet

# Tris Acetate EDTA Buffer, 50X

Revised: 29/01/2014  
Replaced: 23/12/2014  
Printed: 23/12/2014

## Biozoa Biological Supply Company

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### Section 1 – Product Description

**Product Name:** Tris Acetate EDTA Buffer, 50X

**Recommended Use:** Science education applications

**Synonyms:** 3-Aminophthalhydrazide, o-Aminophthaloyl hydrazide, o-Aminophthalyl hydrazide, 3-Aminophthalic hydrazide, 5-Amino-2,3-dihydro-1,4-phthalazinedione

**Distributor:** Biozoa Biological Supply Company. Seoul, Geumcheon-gu, Doosan-ro 70, B-1008(Hyundai-Center)

**Chemical Information:** 02-862-2372 (9am-5pm (ET) M-F)

### 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

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

<b>Extinguishing Media:</b>	Use dry chemical, CO2 or appropriate foam.
<b>Fire Fighting Methods and Protection:</b>	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
<b>Fire and/or Explosion Hazards:</b>	N/A
<b>Hazardous Combustion Products:</b>	Carbon dioxide, Carbon monoxide

## Section 6 – Spill or Leak Procedures

<b>Steps to Take in Case Material Is Released or Spilled:</b>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Vacuum or sweep up material and place in a disposal container</p>
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## Section 7 – Handling and Storage

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

## Section 8 – Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
EDTA, Disodium Salt, Dihydrate	N/A	N/A	N/A	N/A
Acetic Acid	10 ppm TWA	15 ppm STEL	10 ppm TWA; 25 mg/m <sup>3</sup> TWA	N/A

### Control Parameters

<b>Engineering Measures:</b>	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.
<b>Personal Protective Equipment (PPE):</b>	Lab coat, apron, eye wash, safety shower.
<b>Respiratory Protection:</b>	No respiratory protection required under normal conditions of use.
<b>Eye Protection:</b>	Wear chemical splash goggles when handling this product. Have an eye wash station available.
<b>Skin Protection:</b>	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.
<b>Gloves:</b>	Nitrile, Butyl rubber, Neoprene, Polyvinyl chloride

## Section 9- Physical Data

<b>Formula:</b> See Section 3	<b>Vapor Pressure:</b> N/A
<b>Molecular Weight:</b> N/A	<b>Evaporation Rate (BuAc=1):</b> N/A
<b>Appearance:</b> Colorless to White Powder	<b>Vapor Density (Air=1):</b> N/A
<b>Odor:</b> No data available	<b>Specific Gravity:</b> > 1
<b>Odor Threshold:</b> No data available	<b>Solubility in Water:</b> Soluble
<b>pH:</b> No data available	<b>Log Pow (calculated):</b> No data available
<b>Melting Point:</b> No data available 171 C	<b>Autoignition Temperature:</b> No data available
<b>Boiling Point:</b> 100 C	<b>Decomposition Temperature:</b> No data available
<b>Flash Point:</b> No data available	<b>Viscosity:</b> No data available
<b>Flammable Limits in Air:</b> N/A	<b>Percent Volatile by Volume:</b> N/A

## Section 10- Reactivity Data

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

## Section 11 – Toxicity Data

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

<b>Acute Toxicity:</b>				
<b>Chemical Name</b>	<b>CAS Number</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
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	64-19-7			INHALATION LC50 Mouse 5620 ppm

<b>Carcinogenicity:</b>				
<b>Chemical Name</b>	<b>CAS Number</b>	<b>IARC</b>	<b>NTP</b>	<b>OSHA</b>
EDTA, Disodium Salt, Dihydrate	6381-92-6	Not listed	Not listed	Not listed
Acetic Acid	64-19-7	Not listed	Not listed	Not listed

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

## Section 12- Ecological Data

<b>Overview:</b>	This material is not expected to be harmful to the ecology.	
<b>Mobility:</b>	No data	
<b>Persistence:</b>	Dissolved into water, Photodegradation, Biodegradation	
<b>Bioaccumulation:</b>	No data	
<b>Degradability:</b>	No data	
<b>Other Adverse Effects:</b>	No data	
<b>Chemical Name</b>	<b>CAS Number</b>	<b>Eco Toxicity</b>
Water	7732-18-5	No data available

EDTA, Disodium Salt, Dihydrate  
Acetic Acid

6381-92-6  
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

## 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	64-19-7	No	5000 lb RQ	5000 lb final RQ; 2270 kg final RQ	No	No

## Section 16 – Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Biozoa Biological Supply makes representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

### Glossary

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