

Safety Data Sheet

Edwards Buffer

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Edwards Buffer
Recommended Use: Science education applications
Synonyms: None Known
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;

GHS Classification:

Other Safety Precautions: May cause eye irritation.
May cause gastrointestinal discomfort.
May cause irritation to respiratory tract.
May cause irritation to skin.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
Water	7732-18-5	94.9
Tris(Hydroxymethyl) Aminomethane	77-86-1	2.3
Sodium Chloride	7647-14-5	1.4
Ethylenedinitrillo Tetraacetic Acid, Free Acid (EDTA)	60-00-4	0.9
Sodium Dodecyl Sulfate	151-21-3	0.5

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: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact: After contact with skin, wash immediately with plenty of water.
Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media: Use media suitable to extinguish surrounding fire.
Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards: None Known
Hazardous Combustion Products: Sulfur Oxides, Nitrogen oxides, Carbon oxides

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.
No health affects expected from the clean-up of this material if contact can be avoided.
Follow personal protective equipment recommendations found in Section 8 of this (M)SDS
Avoid the generation of dusts during clean-up. Avoid creating and inhaling dust.

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Absorb the liquid and scrub the area with detergent and water. Pick up wash liquid with additional absorbent and place in a disposable container. Do not flush spill to drain.

Section 7 Handling and Storage

Handling: Do not ingest or take internally. Keep locked up and out of the reach of children. Avoid contact with skin and eyes.
Storage: Suitable for any general chemical storage.
Keep container tightly closed in a cool, well-ventilated place.
Storage Code: Green - general chemical storage

Section 8 Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>		<u>OSHA PEL</u>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
Sodium Chloride	N/A	N/A	N/A	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: Natural rubber, Neoprene, PVC or equivalent.

Section 9 Physical Data

Formula: See Section 3	Vapor Pressure: N/A
Molecular Weight: N/A	Evaporation Rate (BuAc=1): N/A
Appearance: Colorless Liquid	Vapor Density (Air=1): N/A
Odor: None	Specific Gravity: approx. 1.05
Odor Threshold: No data available	Solubility in Water: Soluble
pH: No data available	Log Pow (calculated): No data available
Melting Point: 0 C	Autoignition Temperature: No data available
Boiling Point: 100 C	Decomposition Temperature: No data available
Flash Point: No data available	Viscosity: No data available
Flammable Limits in Air: N/A	Percent Volatile by Volume: 0%

Section 10 Reactivity Data

Reactivity:	No data available
Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Exposure to moisture
Incompatible Materials:	Water-reactive materials, Bromine Trifluoride, Lithium
Hazardous Decomposition Products:	Carbon oxides, Nitrogen oxides, Sulfur Oxides
Hazardous Polymerization:	Will not occur

Section 11 Toxicity Data

Routes of Entry: Inhalation and ingestion.
Symptoms (Acute): None Known
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		

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Sodium Chloride	7647-14-5	Oral LD50 Rat 3000 mg/kg	
Ethylenedinitrillo Tetraacetic Acid, Free Acid (EDTA)	60-00-4	Oral LD50 Rat 4500 mg/kg	
Sodium Dodecyl Sulfate	151-21-3	Oral LD50 Rat 1288 mg/kg	Dermal LD50 Rabbit = 580 mg/kg
		Oral LD50 Rat 1600 mg/kg	

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Sodium Chloride	7647-14-5	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:	To the best of our knowledge, the toxicological properties of this mixture have not been thoroughly evaluated.

Section 12

Ecological Data

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

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
Sodium Chloride	7647-14-5	96 HR LC50 LEPOMIS MACROCHIRUS 12946 MG/L [STATIC] 48 HR EC50 DAPHNIA MAGNA 1000 MG/L
Ethylenedinitrillo Tetraacetic Acid, Free Acid (EDTA)	60-00-4	48 HR EC50 DAPHNIA MAGNA 113 MG/L [STATIC] 72 HR EC50 DESMODESMUS SUBSPICATUS 1.01 MG/L
Sodium Dodecyl Sulfate	151-21-3	96 HR LC50 PIMEPHALES PROMELAS 6.2 - 9.6 MG/L 96 HR LC50 LEPOMIS MACROCHIRUS 4.5 MG/L 96 HR LC50 ONCORHYNCHUS MYKISS 4.2 MG/L 48 HR EC50 DAPHNIA MAGNA 1.8 MG/L 96 HR EC50 PSEUDOKIRCHNERIELLA SUBCAPITATA 117 MG/L 96 HR EC50 DESMODESMUS SUBSPICATUS 30 - 100 MG/L 72 HR EC50 DESMODESMUS SUBSPICATUS 53 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.
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Section 15

Regulatory Information

TSCA Status:	All components in this product are on the TSCA Inventory.
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Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Sodium Chloride	7647-14-5	No	No	No	No	No
Ethylenedinitrillo Tetraacetic Acid, Free Acid (EDTA)	60-00-4	No	5000 lb RQ	5000 lb final RQ; 2270 kg final RQ	No	No

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Additional Information

Revised: 09/09/2015

Replaces: 07/31/2015

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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