according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: January 27, 2021

1 Identification

· Product identifier

· Trade name: Trace Hardness Buffer

· Product code: HA7407-B

· Recommended use and restriction on use

· Recommended use: Laboratory chemicals

Restrictions on use: No relevant information available.

Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

AguaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331 USA

Tel +1 (717)632-1291

Toll-Free: (866)632-1291

info@aquaphoenixsci.com

· Distributor:

AquaPhoenix Scientific

860 Gitts Run Road,

Hanover, PA 17331

(717) 632-1291

· Emergency telephone number:

ChemTel Inc.

(800)255-3924 (North America)

+1 (813)248-0585 (International)

2 Hazard(s) identification

· Classification of the substance or mixture

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

- · Hazard pictograms: None.
- · Signal word: None.
- · Hazard statements: None.
- · Precautionary statements: None.

Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Com	· Components:			
7732	2-18-5	Water	69.75%	
102	2-71-6	Triethanolamine	29.9%	
87		(+)-tartaric acid	0.10%	
		♦ Eye Dam. 1, H318	0)	

(Cont'd. on page 2)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: January 27, 2021

Trade name: Trace Hardness Buffer

			. of page 1)
Ш	14402-88-1	Disodium [[N,N'-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']	0.15%
Ш		magnesate(2-)	
Ш		♦ Skin Irrit. 2, H315	
		Eye Irrit. 2B, H320	
	77-92-9	Citric acid	0.10%
		◆ Eye Irrit. 2A, H319; STOT SE 3, H335	

· Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

- Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately rinse with water.

If skin irritation is experienced, consult a doctor.

· After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

- · After swallowing: Do not induce vomiting; immediately call for medical help.
- Most important symptoms and effects, both acute and delayed:

Gastric or intestinal disorders when ingested.

Nausea

Causes mild skin irritation.

- · Danger: No relevant information available.
- · Indication of any immediate medical attention and special treatment needed:

No relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · For safety reasons unsuitable extinguishing agents: No relevant information available.
- · Special hazards arising from the substance or mixture

Heating may produce toxic and corrosive fumes.

- Advice for firefighters
- Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Keep away from ignition sources.

(Cont'd. on page 3)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: January 27, 2021

Trade name: Trace Hardness Buffer

(Cont'd. of page 2)

Wear protective clothing.

- Environmental precautions Do not allow product to reach sewage system or any water course.
- · Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the collected material according to regulations.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- ·Handling
- · Precautions for safe handling:

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

Avoid breathing mist, vapors, or spray.

- Information about protection against explosions and fires: Keep ignition sources away.
- Conditions for safe storage, including any incompatibilities
- · Requirements to be met by storerooms and receptacles:

Store in cool, dry conditions in well sealed receptacles.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

· Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Keep containers tightly sealed.

· Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

102-71-6 Trieth	102-71-6 Triethanolamine		
TLV (USA)	Long-term value: 5 mg/m³		
EL (Canada)	Long-term value: 5 mg/m³		
EV (Canada)	Long-term value: 3.1 mg/m³, 0.5 ppm		
LMPE (Mexico)	Long-term value: 5 mg/m³		

- Exposure controls
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

• Engineering controls: No relevant information available.

(Cont'd. on page 4)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: January 27, 2021

Trade name: Trace Hardness Buffer

(Cont'd. of page 3)

- · Breathing equipment: Not required under normal conditions of use.
- · Protection of hands:



Protective gloves

· Material of gloves Nitrile rubber, NBR Neoprene gloves Butyl rubber, BR · Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- · Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment No special requirements.
- · Risk management measures No special requirements.

Information on basic physical and chemical properties					
Appearance: Form:	Liquid				
Color:	Colorless				
Odor:	Not determined.				
Odor threshold:	Not determined.				
pH-value:	Not determined.				
Melting point/Melting range:	Not determined.				
Boiling point/Boiling range:	105-110 °C (221-166 °F)				
Flash point:	The product is not flammable.				
Flammability (solid, gaseous):	Not applicable.				
Auto-ignition temperature:	Not determined.				
Decomposition temperature:	Not determined.				
Danger of explosion:	Product does not present an explosion hazard.				
Explosion limits					
Lower:	Not determined.				
Upper:	Not determined.				
Oxidizing properties:	Not determined.				
Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)				
Density:					
Relative density:	Not determined.				
Vapor density:	Not determined.				

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: January 27, 2021

Trade name: Trace Hardness Buffer

(Cont'd. of page 4)

Evaporation rate: Not determined.

· Solubility in / Miscibility with

Water: Soluble.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity

Dynamic: Not determined. **Kinematic:** Not determined.

• Other information No relevant information available.

10 Stability and reactivity

- · Reactivity: No relevant information available.
- · Chemical stability: Stable under normal temperatures and pressures.
- Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

- · Possibility of hazardous reactions Corrosive action on metals.
- · Conditions to avoid

Excessive heat.

Keep away from oxidising agents.

- · Incompatible materials Oxidizers, strong bases, strong acids
- · Hazardous decomposition products

Carbon monoxide and carbon dioxide

Under fire conditions only:

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values that are relevant for classification: None.
- · Primary irritant effect:
- · On the skin: May cause minor skin irritation, mainly with prolonged contact.
- · On the eye: Based on available data, the classification criteria are not met.
- Sensitization: Based on available data, the classification criteria are not met.
- · IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.

Inhalation.

Eye contact.

(Cont'd. on page 6)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: January 27, 2021

Trade name: Trace Hardness Buffer

(Cont'd. of page 5)

Skin contact.

- · Acute effects (acute toxicity, irritation and corrosivity): No relevant information available.
- · Repeated dose toxicity: No relevant information available.
- Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- · Carcinogenicity: Based on available data, the classification criteria are not met.
- · Reproductive toxicity: Based on available data, the classification criteria are not met.
- STOT-single exposure: Based on available data, the classification criteria are not met.
- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- · Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

- · Toxicity
- · Aquatic toxicity No relevant information available.
- · Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- · Mobility in soil: No relevant information available.
- · Additional ecological information
- · General notes: Generally not hazardous for water.
- · Other adverse effects No relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Smaller quantities can be disposed of with household waste.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- Uncleaned packagings
- · Recommendation: Disposal must be made according to official regulations.

4 Transport information		
· UN-Number		
· DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
UN proper shipping name	<u> </u>	
DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
· Transport hazard class(es)		
DOT, ADR/RID/ADN, IMDG, IATA		
· Class	Not regulated.	
· Packing group		
DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
		(Cont'd. on page

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: January 27, 2021

Trade name: Trace Hardness Buffer

(Cont'd. of page 6)

• Environmental hazards Not applicable.

· Special precautions for user Not applicable.

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- · Section 302 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed or exempt.

- · Proposition 65 (California)
- · Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· EPA (Environmental Protection Agency):

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

None of the ingredients are listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods

(Cont'd. on page 8)

Page: 8/8

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: January 27, 2021

Trade name: Trace Hardness Buffer

(Cont'd. of page 7)

DOT: US Department of Transportation IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

· Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers