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

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1 Identification Product identifier Trade name: Hardness Reagent · Product code: AR-1003-1000 EW 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: AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 USA Tel +1 (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com Distributor: Aqua Analytics 39555 Orchard Hill Place Suite 600, Novi. MI 48375 (888) 712-4000 · 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 substance is not classified as hazardous according to the Globally Harmonized System (GHS).

[•] Label elements

· GHS label elements Not regulated.

- · Hazard pictograms: Not regulated.
- · Signal word: Not regulated.
- · Hazard statements: Not regulated.

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

3 Composition/information on ingredients

[•] Chemical characterization: Substances

· Compone	nts:	
7732-18-5	Water	99.5%
6381-92-6	Disodium dihydrogen ethylenediaminetetraacetate STOT RE 2, H373 Acute Tox. 4, H332	0.5%
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.

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4 First-aid measures

[•] Description of first aid measures

• After inhalation: Supply fresh air; consult doctor in case of complaints.

• After skin contact:

Wash with soap and 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. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed:

Gastric or intestinal disorders when ingested.

Slight irritant effect on eyes.

Causes skin irritation.

Indication of any immediate medical attention and special treatment needed:

No relevant information available.

5 Fire-fighting measures

• Extinguishing media

• Suitable extinguishing agents:

The product is not flammable.

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

Formation of toxic gases is possible during heating or in case of fire.

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.

Use personal protective equipment as required.

• Environmental precautions Do not allow to enter sewers/ surface or ground water.

[•] Methods and material for containment and cleaning up

Towel or mop up material and collect in a suitable container. For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard. Send for recovery or disposal in suitable receptacles.

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.

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7 Handling and storage

- · Handling
- Precautions for safe handling: Open and handle receptacle with care.
- · Information about protection against explosions and fires: No special measures required.
- 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.
- Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
- · 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.

• Exposure controls

- · General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid close or long term contact with the skin.

- · Engineering controls: No relevant information available.
- · Breathing equipment: Not required under normal conditions of use.
- · Protection of hands:



Protective gloves

Gloves are advised for repeated or prolonged contact.

Wear protective gloves to handle contents of damaged or leaking units.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. **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 relevant information available.

• Risk management measures No relevant information available.

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9 Physical and chemical prope	rties
· Information on basic physical a	nd chemical properties
Appearance:	
Form:	Liquid
Color:	Clear
· Odor:	Not determined.
· Odor threshold:	Not determined.
· pH-value:	Not determined.
 Melting point/Melting range: 	Not determined.
 Boiling point/Boiling range: 	Not determined.
· 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:	Non-oxidizing.
· Vapor pressure:	Not determined.
· Density:	
Relative density:	Not determined.
Vapor density:	Not determined.
Evaporation rate:	Not determined.
 Solubility in / Miscibility with 	
Water:	Soluble.
· Partition coefficient (n-octanol/wat	er): 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 Reacts with strong acids.

· Conditions to avoid Excessive heat.

· Incompatible materials No relevant information available.

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[•] Hazardous decomposition products

Under fire conditions only:

Carbon monoxide and carbon dioxide

11 Toxicological information

· Information on toxicological effects

• Acute toxicity: Based on available data, the classification criteria are not met.

- · LD/LC50 values that are relevant for classification: None.
- Primary irritant effect:
- On the skin: Based on available data, the classification criteria are not met.
- · 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.

Skin contact.

- 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:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Other adverse effects No relevant information available.

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13 Disposal considerations

[·] Waste treatment methods

· Recommendation:

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

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.

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)

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· Proposition 65 (California)

· Chemicals known to cause cancer:

All ingredients are listed or exempt.

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):

All ingredients listed on DSL or NDSL.

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 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 Acute Tox. 4: Acute toxicity – Category 4 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2 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