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

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1 Identification

· Product identifier

· Trade name: Polymer Reagent #1 · Product code: AR-1035-500 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

Acute Tox. 4 H332 Harmful if inhaled.

STOT RE 2 H373 May cause damage to the respiratory tract through prolonged or repeated exposure. Route of exposure: Inhalation.

- · Label elements
- · GHS label elements

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

· Hazard pictograms:





GHS07 GHS08

· Signal word: Warning

· Hazard statements:

H332 Harmful if inhaled.

H373 May cause damage to the respiratory tract through prolonged or repeated exposure. Route of exposure: Inhalation.

· Precautionary statements:

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P271 Use only outdoors or in a well-ventilated area.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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P312 Call a poison center/doctor if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

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

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Components:					
6381-92-6 Disodium dihydrogen ethylenediaminetetraacetate		38%			
♦ STOT RE 2, H373					
Acute Tox. 4, H332					
7732-18-5 Water		62%			

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:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air.

If experiencing respiratory symptoms: Call a doctor.

· After skin contact:

Wash with soap and water.

If skin irritation continues, 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:

Causes mild skin irritation.

Coughing

Nausea in case of ingestion.

Gastric or intestinal disorders when ingested.

· Danger:

Danger of disturbed cardiac rhythm.

May be harmful if inhaled.

May cause damage to the respiratory tract through prolonged or repeated exposure. Route of exposure: Inhalation.

Indication of any immediate medical attention and special treatment needed:

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If medical advice is needed, have product container or label at hand.

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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

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.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental precautions

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

Methods and material for containment and cleaning up

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

7 Handling and storage

- Handling
- · Precautions for safe handling:

Use only in well ventilated areas.

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

- 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: No special requirements.
- · Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

Further information about storage conditions:

Keep containers tightly sealed.

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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 and skin.

- · Engineering controls: Provide adequate ventilation.
- · Breathing equipment:

Not required under normal conditions of use.

Use suitable respiratory protective device when high concentrations are present.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· Material of gloves

Latex, nitrile or neoprene gloves are recommended.

Nitrile rubber, NBR

Neoprene gloves

Butyl rubber, BR

Natural rubber, NR

Sensibilization by the components in the glove materials is possible.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· 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.

9 Physical and chemical properties

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Information on basic physical and chemical properties					
Appearance:					
Form:	Liquid				
Color:	Clear, colorless				
Odor:	Odorless				
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.				
Evaporation rate:	Not determined.				
Solubility in / Miscibility with					
Water:	Fully miscible.				
Partition coefficient (n-octanol/water	r): 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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Possibility of hazardous reactions

Toxic fumes may be released if heated above the decomposition point. Reacts with strong oxidizing agents.

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- Conditions to avoid Avoid heat or contamination.
- Incompatible materials

Reducing agents, combustible materials, moisture, contact with metals.

Strong acids

Alkalis

Metals.

· Hazardous decomposition products

Under fire conditions only:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NOx)

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:					
ATE (Acu	y Estimate)				
Oral	LD50	7368 mg/kg (rat)			
Inhalative	LC50/4h	3.95 mg/l			

6381-92-6 Disodium dihydrogen ethylenediaminetetraacetate Oral LD50 2800 mg/kg (rat)

- Primary irritant effect:
- On the skin:

Causes mild skin irritation.

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.

Eve contact.

Skin contact.

- · Acute effects (acute toxicity, irritation and corrosivity): Causes mild skin irritation.
- 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:

May cause damage to the respiratory tract through prolonged or repeated exposure. Route of exposure:

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Inhalation.

· 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.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. 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.

14 Transport information		
· UN-Number · DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
· UN proper shipping name · 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.	
· Environmental hazards	Not applicable.	
· Special precautions for user	Not applicable.	
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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)

7732-18-5 Water

- · 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

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

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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