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| I Identification | |
|--|--|
| · Product identifier | |
| Trade name: <u>Hardness Titrant, Low</u> Product code: ED2071SS | |
| 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: 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) | |

[•] 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: 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: Substances

| · Components: | |
|--|-------------------|
| 1310-73-2 Sodium hydroxide | 0.053% |
| Met. Corr.1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318 | |
| 7758-16-9 Sodium Acid Pyrophosphate | 0.385% |
| Eye Irrit. 2A, H319 | |
| 7791-18-6 Magnesium chloride hexahydrate | 0.065% |
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(Cont'd. of page 1) 99.497%

7732-18-5 Water

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

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

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.

For large spills, wear protective clothing.

Environmental precautions No special measures required.

[•] Methods and material for containment and cleaning up

For small spills, use a towel. Mop up larger spills.

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

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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:

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

Use only in well ventilated 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: Avoid storage near extreme heat.

- · Information about storage in one common storage facility: Store away from foodstuffs.
- Further information about storage conditions:
- Keep containers tightly sealed.

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: Not required under normal conditions of use. Wear protective gloves to handle contents of damaged or leaking units. Material of gloves Fluorocarbon rubber (Viton) Natural rubber. NR Butyl rubber, BR Nitrile rubber. NBR Neoprene aloves Sensibilization by the components in the glove materials is possible. (Cont'd. on page 4)

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· 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 | | | | |
|---|---|--|--|--|
| Information on basic physical and chemical properties | | | | |
| · Appearance: Form: | Liquid | | | |
| Color: | Colorless | | | |
| · Odor: | Slight | | | |
| Odor threshold: | Not determined. | | | |
| · pH-value: | Not determined. | | | |
| • Melting point/Melting range: | <0 °C (<32 °F) | | | |
| Boiling point/Boiling range: | 100-101 °C (212-149.8 °F) | | | |
| · Flash point: | The product is not flammable. | | | |
| · Flammability (solid, gaseous): | Not determined. | | | |
| · 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: | Fully miscible. | | | |
| · Partition coefficient (n-octanol/wat | ter): Not determined. | | | |
| · Viscosity | | | | |
| Dynamic: | Not determined. | | | |
| Kinematic: | Not determined. | | | |
| [·] Other information | No relevant information available. | | | |

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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

Toxic fumes may be released if heated above the decomposition point.

· Conditions to avoid Excessive heat.

· Incompatible materials No relevant information available.

[·] Hazardous decomposition products

Under fire conditions only:

Possible in traces:

Nitrogen oxides (NOx)

Chlorine compounds

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.

• 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.

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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:

Negative ecological effects are, according to the current state of knowledge, not expected.

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.

| 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. | |
| Transport in bulk according to Annex | Il of | |
| MARPOL73/78 and the IBC Code | Not applicable. | |

15 Regulatory information

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| | (Cont'd. of page |
|---|---|
| | Safety, health and environmental regulations/legislation specific for the substance of 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. |

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 Met. Corr. 1: Corrosive to metals – Category 1 Skin Corr. 1A: Skin corrosion/irritation – Category 1A Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A • Sources

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

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(Cont'd. of page 7) 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 SDS Prepared by: ChemTel 1305 North Florida Avenue Tampa, Florida USA 33602-2902

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