Alkalinity Titrant High

SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : **Alkalinity Titrant High**

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: **ANDSA1595-B**

Recommended uses of the product and restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific, Inc
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Supplier Details:

Anderson Chemical Company
325 South David Avenue, Litchfield, MN 55355
(320) 693-2477

Emergency telephone number:

Anderson Chemical Company Emergency Telephone No.: (800) 255-3924

SECTION 2 : Hazards identification

Classification of the substance or mixture:

Corrosive
Corrosive to metals, category 1

Corrosive to metals. 1

Signal word :Warning

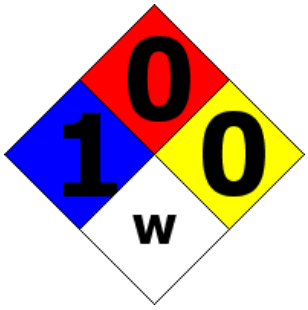
Hazard statements:
May be corrosive to metals
Precautionary statements:
If medical advice is needed, have product container or label at hand
Keep out of reach of children
Read label before use
Keep only in original container
Absorb spillage to prevent material damage
Store in a corrosive resistant/... container with a resistant inner liner

Other Non-GHS Classification:

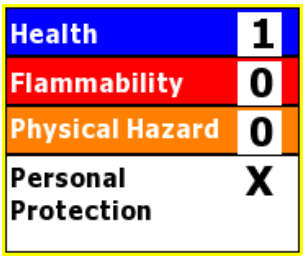
WHMIS

E 

NFPA/HMIS



NFPA SCALE (0-4)



HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:		
CAS 7664-93-9	Sulfuric Acid	3.231 %
CAS 7732-18-5	water, Purified	96.769 %
		Percentages are by weight

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position.Provide oxygen if breathing is difficult. Seek immediate medical advice.

After skin contact: Rinse thoroughly. Rinse/flush exposed area gently using water for at least 30 minutes. Seek immediate medical attention.Remove contaminated clothing and discard. Neutralize the soaking solution with sodium hydroxide solution.

After eye contact: Protect unexposed eye. Remove contact lens(es) if able to do so during rinsing. Rinse/flush exposed eye(s) gently using water for at least 30 minutes. Seek immediate medical attention.Rinse under the eyelids during flushing.

After swallowing: Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Do not induce vomiting. Seek immediate medical attention.

Most important symptoms and effects, both acute and delayed:

Irritation, Nausea,Headache, Shortness of breath.Burning of eyes or skin. Coughing;Strong inorganic acid mists containing sulfuric acid can cause cancer. Lung damage, chronic bronchitis. Damage to teeth and stomach

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician.Use of soap may assist with neutralization on exposed skin in conjunction with flushing

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Use dry Chemical, foam, or carbon dioxide to extinguish fire.

For safety reasons unsuitable extinguishing agents: Do not use water directly on sulfuric acid

Special hazards arising from the substance or mixture:

Combustion products may include carbon oxides or other toxic vapors.Poisonous sulfur oxides are combustion

products. Aerosols or mist may be produced in a fire. Sulfuric acid may ignite combustibles

Advice for firefighters:

Protective equipment: Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment for fire and chemical resistance

Additional information (precautions): Containers may explode

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Neutralize with lime or soda ash. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation.Keep away from ignition sources. Protect from heat.Stop the spill, if possible. Contain spilled material by diking or using inert absorbent. Transfer to a disposal or recovery container.

Environmental precautions:

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13

Methods and material for containment and cleaning up:

If in a laboratory setting, follow Chemical Hygiene Plan procedures.Always obey local regulations. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor.Do not use water.Neutralize with lime or soda ash. Add water to slurry.Decant water to drain with excess water.Dispose of remaining solid as normal refuse.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Prevent formation of aerosols. Do not mix with bases.Wash hands after handling.Avoid contact with skin and eyes. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. Wear protective clothing and equipment. Do not handle with incompatibles (see Section 10). Avoid inhalation of vapour or mist.

Conditions for safe storage, including any incompatibilities:

Protect from freezing.Keep container tightly closed.Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents.Store in cool, dry conditions in well sealed containers. Do not store near incompatible materials (see Section 10). Store away from reducing agents.

SECTION 8 : Exposure controls/personal protection

Control Parameters:	7664-93-9, Sulfuric Acid, OSHA PEL: 1mg/m3 7664-93-9, Sulfuric Acid, ACGIH TLV: 0.2 mg/m3
Appropriate Engineering controls:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling.Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.Use under a fume hood. Ensure eyewash and safety showers are available.

Respiratory protection:	Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable. Use under a fume hood. Respirator with acid gas cartridges
Protection of skin:	The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled.Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.Wear protective equipment to prevent contact with skin, eyes, or hair
Eye protection:	Safety glasses with side shields or goggles.Face shield
General hygienic measures:	Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

SECTION 9 : Physical and chemical properties

Appearance (physical state,color):	Clear, colorless liquid	**Explosion limit lower**: **Explosion limit upper**:	Not determined Not determined
Odor:	Odorless	**Vapor pressure**:	Not Determined
Odor threshold:	Not determined	**Vapor density**:	Not Determined
pH-value:	<1	**Relative density**:	Approx 1
Melting/Freezing point:	Below 0	**Solubilities**:	Soluble in water
Boiling point/Boiling range:	Approx 100C	**Partition coefficient (n-octanol/water)**:	Not determined
Flash point (closed cup):	Not determined	**Auto/Self-ignition temperature**:	Not determined
Evaporation rate:	Not Determined	**Decomposition temperature**:	Not determined
Flammability (solid,gaseous):	Not Determined	**Viscosity**:	a. Kinematic:Not determined b. Dynamic: Not determined
Density: Not determined			

SECTION 10 : Stability and reactivity

Reactivity: Reacts violently with water with evolution of heat. Corrosive to metals.
Chemical stability: No decomposition if used and stored according to specifications.
Possible hazardous reactions: Reacts violently or explosively with incompatibles. Reacts with most metals to produce hydrogen gas, which may form explosive mixtures with air
Conditions to avoid: Store away from incompatible substances. excess heat.
Incompatible materials: Organics. Metals. Strong acids.Strong bases.Alcohols. Chlorine. halogenated compounds . Combustible materials. Chlorates. Alkalines. Carbides. Fulminates. Reducing agents. Nitrates. Acetic acid. Oxidizing agents
Hazardous decomposition products: Oxides of sulfur. Carcinogenic mists/aerosols. Oxygen

SECTION 11 : Toxicological information

Acute Toxicity:

Oral:	7664-93-9	LD50 Rat: 2140 mg/kg
Inhalation:	7664-93-9	LD50 Rat: 510 mg/m3 - 2h
Chronic Toxicity:		
Inhalation:		Repeated exposure may cause bronchitis to develop with coughing, phlegm, and/or shortness of breath
Oral:		Repeated exposure can cause damage to teeth and upset stomach
Corrosion Irritation:		
Dermal:	7664-93-9	Rabbit - Extremely corrosive and destructive to tissue.
Ocular:	7664-93-9	Rabbit - Corrosive to eyes.
Sensitization:		No additional information.
Single Target Organ (STOT):		No additional information.
Numerical Measures:		No additional information.
Carcinogenicity:		Strong inorganic acid mists containing sulfuric acid: IARC Group 1
Mutagenicity:		No additional information.
Reproductive Toxicity:		No additional information.

SECTION 12 : Ecological information

Ecotoxicity

7664-93-9: EC50 - Daphnia magna (Water flea) - 29 mg/l - 24 h

7664-93-9: LC50 - Gambusia affinis (Mosquito fish) - 42 mg/l - 96 h

Persistence and degradability: Not applicable for test method.
Bioaccumulative potential: Not Bioaccumulative.
Mobility in soil: Aqueous solution has high mobility in soil.
Other adverse effects: Concentrated sulfuric acid has moderate acute and chronic toxicity to aquatic life, which is driven by the pH of the aquatic environment, as a result of the presence of the acid. Small quantities will be neutralized by natural alkalinity.

SECTION 13 : Disposal considerations

Waste disposal recommendations:

Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water.It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product.

SECTION 14 : Transport information

UN-Number

2796

UN proper shipping name

Sulfuric Acid Solution

Transport hazard class(es)

Class:
8 Corrosive substances

Packing group:II
Environmental hazard:
Transport in bulk:

Name: 49CFR173.242
Ship type: Not Applicable
Pollution category: Y

Special precautions for user: N34: Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material.A3: For combination packagings, if glass inner packagings (including ampoules) are used, they must be packed with absorbent material in tightly closed metal receptacles before packing in outer packagings.A3. A7. B3. B83. B84. IB2. N34. T8. TP2

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Reactive, Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

7664-93-9 Sulfuric acid

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

7664-93-9 sulfuric acid 1000 lb

Proposition 65 (California):

Chemicals known to cause cancer:

7664-93-9 sulfuric acid

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

7664-93-9 Sulfuric acid

SECTION 16 : Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.Note:. The responsibility to provide a safe workplace remains with the user.The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment.The information contained herein is, to the best of our knowledge and belief, accurate.However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material.It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Abbreviations and acronyms:
IMDG: International Maritime Code for Dangerous Goods
PNEC: Predicted No-Effect Concentration (REACH)
CFR: Code of Federal Regulations (USA)
SARA: Superfund Amendments and Reauthorization Act (USA)
RCRA: Resource Conservation and Recovery Act (USA)
TSCA: Toxic Substances Control Act (USA)
NPRI: National Pollutant Release Inventory (Canada)
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)

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