

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier**

**Product name** Alkalinity Titration B

**Other means of identification**

**Product Code(s)** 4493

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Use as a laboratory reagent. Laboratory chemicals. Industrial (not for food or food contact use).

**Details of the supplier of the safety data sheet**

**Manufacturer Address**  
 LaMotte Company, Inc.  
 802 Washington Avenue  
 P.O. Box 329  
 Chestertown, MD 21620 USA  
 T 410-778-3100  
 F 410-778-9748

**Emergency telephone number**

24 Hour Emergency Number (CHEM-TEL): USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

## 2. HAZARDS IDENTIFICATION

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

### EMERGENCY OVERVIEW

**DANGER**

**Hazard statements**

Causes severe skin burns and eye damage.



**Appearance** Clear, colorless

**Physical state** liquid

**Odor** Odorless

**Precautionary Statements - Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not taste or swallow. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling.

**Precautionary Statements - Response**

Immediately call a POISON CENTER or physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

IF SWALLOWED, Rinse mouth, Do NOT induce vomiting

#### Precautionary Statements - Storage

Store locked up.

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Sulfuric acid	7664-93-9	0.1
Water	7732-18-5	to 100%

### 4. FIRST AID MEASURES

#### First Aid Measures

##### General advice

Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray.

##### Eye contact

Immediately flush eyes with gentle stream of water for at least 15 minutes, occasionally lifting upper and lower eyelids. Call a physician immediately.

##### Skin contact

Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Excess acid on skin can be neutralized with a 2% solution of sodium bicarbonate in water. Consult a physician.

##### Inhalation

Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel.

##### Ingestion

Do NOT induce vomiting. Drink plenty of water. Clean mouth with water. Call a physician immediately. Never give anything by mouth to an unconscious person.

##### Self-protection of the first aider

Use personal protective equipment. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

### 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media

Dry chemical or CO<sub>2</sub>. DO NOT USE WATER.

#### Specific hazards arising from the chemical

Contact with most metals causes the formation of explosive and flammable hydrogen gas. React vigorously with water.

#### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation. Avoid contact with skin, eyes, and inhalation of vapors. Use personal protective equipment. See section 8.

**Environmental precautions** See Section 12 for additional Ecological Information.

#### **Methods and material for containment and cleaning up**

**Methods for cleaning up** Neutralize spill with alkaline material (sodium bicarbonate), being careful to prevent splattering, then containerize slurry and hold for later disposal. If local regulations permit, dilute slurry with water and rinse to drain with excess water. After cleaning, flush away traces with water.

## **7. HANDLING AND STORAGE**

### **Precautions for safe handling**

**Handling** Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not taste or swallow. Do not eat, drink, or smoke when using this product.

### **Conditions for safe storage, including any incompatibilities**

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from incompatible materials such as cyanides or sulfides. Store away from strong bases or metals. Do not store near combustible materials. Keep out of the reach of children.

**Incompatible Products** Water. Strong bases. Metals. Combustible materials. Cyanides. Sulfides. Formaldehyde.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sulfuric acid 7664-93-9	TWA: 0.2 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	IDLH: 15 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup>
Water 7732-18-5	-	-	Not Established

### **Appropriate engineering controls**

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

### **Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection** Wear protective gloves/clothing.

**Respiratory protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Take off contaminated clothing and wash before reuse.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **Information on basic physical and chemical properties**

<b>Physical state</b>	liquid	<b>Odor</b>	Odorless
<b>Appearance</b>	Clear, colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	1	No information available
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate		
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	No information available	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	
<b>Other Information</b>		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	No information available	
Density	No information available	
Bulk density	No information available	

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal conditions of use and storage.
<b>Hazardous Reactions</b>	Reacts violently with water. Contact with metals may evolve flammable hydrogen gas.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Excessive heat. Incompatible products. Direct sunlight.
<b>Incompatible materials</b>	Water. Strong bases. Metals. Combustible materials. Cyanides. Sulfides. Formaldehyde.
<b>Hazardous decomposition products</b>	Hydrogen gas. Sulfur oxides (SO <sub>x</sub> ).

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### **Component Information**

<b>Chemical name</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
Sulfuric acid 7664-93-9	= 2140 mg/kg ( Rat )	Not Established	= 510 mg/m <sup>3</sup> ( Rat ) 2 h
Water 7732-18-5	> 90 mL/kg ( Rat )	Not Established	Not Established

#### **Information on toxicological effects**

<b>Chemical name</b>	<b>ACGIH</b>	<b>IARC</b>	<b>NTP</b>	<b>OSHA</b>
Sulfuric acid 7664-93-9	A2	Group 1	Known	X
Water 7732-18-5	Not Established	Not Established	Not Established	Not Established

*ACGIH (American Conference of Governmental Industrial Hygienists)*

A2 - Suspected Human Carcinogen  
 IARC (International Agency for Research on Cancer)  
 Group 1 - Carcinogenic to Humans  
 NTP (National Toxicology Program)  
 Known - Known Carcinogen  
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)  
 X - Present

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Chemical name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Sulfuric acid 7664-93-9	Not Established	500: 96 h Brachydanio rerio mg/L LC50 static	29: 24 h Daphnia magna mg/L EC50
Water 7732-18-5	Not Established	Not Established	Not Established

### Persistence and degradability

No information available.

### Bioaccumulation/Accumulation

When released into the soil, this material may leach into ground water. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet or dry deposition.

Chemical name	Log Pow
Sulfuric acid 7664-93-9	Not Established
Water 7732-18-5	Not Established

## 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

Dispose according to federal, state, and local regulations. If permitted, neutralize reagent with sodium bicarbonate/sodium carbonate, add slurry to large volume of water to dilute, rinse to drain with excess water.

### Contaminated packaging

Do not reuse empty containers.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Sulfuric acid 7664-93-9	Not Established	-	Not Established	Not Established
Water 7732-18-5	Not Established	-	Not Established	Not Established

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Sulfuric acid 7664-93-9	Not Established	Not Established	Not Established	Not Established
Water 7732-18-5	Not Established	Not Established	Not Established	Not Established

Chemical name	California Hazardous Waste Status
Sulfuric acid 7664-93-9	-
Water 7732-18-5	-

## 14. TRANSPORT INFORMATION

### DOT

Not regulated

IATA Not regulated

IMDG/IMO Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Sulfuric acid 7664-93-9	1.0
Water 7732-18-5	Not Established

#### **SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	Yes

#### **CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sulfuric acid 7664-93-9	1000 lb	Not Established	Not Established	X
Water 7732-18-5	Not Established	Not Established	Not Established	Not Established

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	RQ
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Sulfuric acid 7664-93-9	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ
Water 7732-18-5	-	Not Established	-

**US State Regulations****California Proposition 65**

California Proposition 65 has classified "strong inorganic acid mists containing sulfuric acid" as a chemical known to the State of California to cause cancer. This classification applies only to "inorganic mists containing sulfuric acid" and not to sulfuric acid or sulfuric acid solutions

Chemical name	California Proposition 65
Sulfuric acid 7664-93-9	Carcinogen
Water 7732-18-5	Not Established

**U.S. State Right-to-Know Regulations**

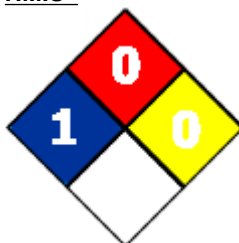
Chemical name	New Jersey	Massachusetts	Pennsylvania
Sulfuric acid 7664-93-9	X	X	X
Water 7732-18-5	Not Established	Not Established	X

**CPSC (Consumer Product Safety Commission) - Specially Regulated Substances**

Chemical name	CPSC (Consumer Product Safety Commission) - Specially Regulated Substances
Sulfuric acid 7664-93-9	Add POISON to label, 16 CFR 1500.129 (>=10%, free or chemically unneutralized)

**16. OTHER INFORMATION**

<b>NFPA</b>	Health hazard 1	Flammability 0	Instability 0	<b>Physical and Chemical Hazards</b> W
<b>HMIS</b>	Health hazard 1	Flammability 0	Stability 1	



Health Hazard	1
Fire Hazard	0
Reactivity	1

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 Disclaimer

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**End of Material Safety Data Sheet**