

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name	Ceric Sulfate Solution, 0.1N in 10% Sulfuric Acid
CAS number	N/A
Synonyms	N/A

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals.
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#### 1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

#### 1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC


### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Eye Irritation	Category 1
Carcinogenicity	Category 1A
Specific Target Organ Toxicity (single exposure) Target Organ(s) - Respiratory system	Category 3

## 2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	Causes severe skin burns and eye damage. May cause respiratory irritation. May cause cancer.
Precautionary statements	<p>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 breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area.</p> <p>Response: Immediately call a POISON CENTER or doctor/physician.</p> <p>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.</p> <p>Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed.</p> <p>Disposal: Dispose of contents/container to an approved waste disposal plant.</p>

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Toxic to aquatic life with long lasting effects.  
WARNING: Cancer.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Water	Aqua; H <sub>2</sub> O	7732-18-5	84-88%
Sulfuric acid	Hydrogen sulfate; Oil of Vitriol	7664-93-9	9-10%
Cerium (IV) sulfate	Ceric sulfate; Ceric disulfate	13590-82-4	3-6%

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

<b>If inhaled</b>	If not breathing, give artificial respiration. Remove from exposure, lie down. 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. Call a physician immediately.
<b>In case of skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.
<b>In case of eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
<b>If swallowed</b>	Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue, and danger of perforation. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated.

### 4.3 Indication of any immediate medical attention and special treatment needed

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire. CO <sub>2</sub> , dry chemical, dry sand, alcohol-resistant foam.
<b>Unsuitable extinguishing media</b>	No information available.

### 5.2 Specific hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin, and mucous membranes.

Hazardous Combustion Products: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Sulfur oxides

### 5.3 Special 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.

### 5.4 Further information

**Flash Point** No information available.

**Autoignition Temperature** No information available.

#### Explosion limits

**Upper** No data available.

**Lower** No data available.

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

#### NFPA

Health	Flammability	Instability	Physical hazards
3	0	0	N/A

## SECTION 6: Accidental release measures

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

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### 6.2 Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information. Collect spillage.

### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Precautions on safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed, seek immediate medical assistance.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

**7.2 Conditions for safe storage, including any incompatibilities****Storage conditions**

Keep containers tightly closed in a dry, cool, and well-ventilated place. Corrosives area.

**Incompatibilities**

Strong oxidizing agents.

## SECTION 8: Exposure controls/personal protection

**8.1 Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Component	Type	Value
Sulfuric acid	(Vacated) TWA	1 mg/m <sup>3</sup>
	TWA	1 mg/m <sup>3</sup>

**US. ACGIH Threshold Limit Values**

Component	Type	Value
Sulfuric acid	TWA	0.2 mg/m <sup>3</sup>

**US. NIOSH: Pocket Guide to Chemical Hazards**

Component	Type	Value
Sulfuric acid	IDLH	15 mg/m <sup>3</sup>
	TWA	1 mg/m <sup>3</sup>

**Biological occupational exposure limits**

No information available.

**8.2 Exposure controls****Appropriate engineering controls**

Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protective equipment****Eye/face protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Body Protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Control of environmental exposure**

No information available.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Physical State	Liquid
Appearance	Yellow
Odor	No information available
Odor Threshold	No information available
pH	No information available
Melting Point/Range	No data available
Boiling Point/Range	No information available
Evaporation Rate	> 1 (ether = 1)
Flammability (solid)	Not applicable
Flammability or explosive limit	No data available
Upper	
Lower	
Vapor Pressure	No information available
Vapor Density	0.7 (Water = 1.0)
Density	No information available
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	N/A
Molecular Weight	N/A
VOC Content(%)	No information available
Oxidizing properties	No information available

**9.2 Other safety information**

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No information available.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

None under normal processing.

### 10.4 Conditions to avoid

Incompatible products. Excess heat.

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Sulfur oxides.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

#### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sulfuric acid	2140 mg/kg (Rat)	-	0.375 mg/L (Rat) 4h

#### Skin corrosion/irritation

Causes burns by all exposure routes.

#### Serious eye damage/eye irritation

Causes burns by all exposure routes.

#### Respiratory or skin sensitization

Causes burns by all exposure routes.

#### Germ cell mutagenicity

No information available.

#### Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Sulfuric acid	7664-93-9	Group 1	Known	A2	X	A2

Cerium (IV) sulfate	13590-82-4	Not listed	Not listed	Not listed	Not listed	Not listed
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**Specific target organ toxicity - single exposure**

Respiratory system.

**Specific target organ toxicity - repeated exposure**

None known.

**Reproductive toxicity**

No information available.

**Chronic effects**

Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue, and danger of perforation. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated.

**11.2 Additional Information**

The toxicological properties have not been fully investigated.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment. The product contains the following substance which is hazardous for the environment.

Product		Species	Test Results
Sulfuric acid	LC50	Brachydanio rerio	>500 mg/L, 96h static
	EC50	Water Flea	29 mg/L/24h

**12.2 Persistence and degradability**

Soluble in water. Persistence is unlikely based on information available.

**12.3 Bio accumulative potential**

No information available.

**12.4 Mobility in soil**

Will likely be mobile in the environment due to its water solubility.

**12.5 Results of PBT and vPvB assessment**

No information available.

**12.6 Endocrine disrupting properties**

No information available.

**12.7 Other adverse effects**



No information available.

## SECTION 13: Disposal considerations

### 13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

### DOT (US)

UN-No	UN3264
Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class	8
Packing Group	II

### IMDG

UN-No	UN3264
Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class	8
Packing Group	II

### IATA

UN-No	UN3264
Proper Shipping Name	Corrosive liquid, acidic, inorganic, n.o.s.
Hazard Class	8
Packing Group	II

## SECTION 15: Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not applicable.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Listed, Sulfuric acid (CAS #7664-93-9), RQ: 1000 lb.

**SARA 304 Emergency release notification**

Listed, Sulfuric acid (CAS #7664-93-9), RQ: 1000 lb.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Listed, Sulfuric acid (CAS #7664-93-9), TPQ: 1000 lb.

**SARA 311/312 Hazardous**

See Section 2 for more information.

**SARA 313 (TRI reporting)**

Listed, Sulfuric acid (CAS #7664-93-9).

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Clean Water Act (CWA)**

Listed, Sulfuric acid (CAS #7664-93-9), RQ: 1000 lb.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Not listed.

**US state regulations****US. Massachusetts RTK - Substance List**

Listed, Sulfuric acid (CAS #7664-93-9).

**US. New Jersey Worker and Community Right-to-Know Act**

Listed, Sulfuric acid (CAS #7664-93-9).

**US. Pennsylvania Worker and Community Right-to-Know Law**

Listed, Sulfuric acid (CAS #7664-93-9).

**California Proposition 65**

Listed, Sulfuric acid (CAS #7664-93-9).

**SECTION 16: Other information**

Issue date: 11/04/2024

**SECTION 17: Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.