



Material Safety Data Sheet

Ceric ammonium sulfate, 0.02N-1.0N, Ceric sulfate, 0.1N in 1.0 - 2.0N Sulfuric Acid

Section 1 - Chemical Product and Company Identification

MSDS Name:

Ceric ammonium sulfate, 0.02N-1.0N, Ceric sulfate, 0.1N in 1.0 - 2.0N Sulfuric Acid

Catalog Numbers:

LC12920, LC12930

Synonyms:

Company Identification:

LabChem, Inc.
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
7664-93-9	Sulfuric acid	5.7 - 11.4
16774-21-3	Ceric ammonium nitrate	1.2-55

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Orange-yellow

Caution! Corrosive. May cause eye irritation and possible burns. May cause skin irritation.

Target Organs: Noneknown.

Potential Health Effects

Eye:

May cause severe eye irritation. Causes irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. May cause blindness.

Skin:

Skin contact may cause irritation, pain, burns and blisters.



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Ingestion:

Ingestion may produce burns of the mouth, esophagus with abdominal pain, vomiting, diarrhea, asphyxia (esophageal swelling), stomach and esophageal perforation.

Inhalation:

Toxic if inhaled with nose/throat irritation, cough, headache, increased respiration rate, lung capacity impairment (delayed symptoms include pulmonary edema, tight chest, cyanosis, hypotension, bronchitis, emphysema).

Chronic:

Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis. Skin irritation/dermatitis, conjunctivitis and lacrimation of the eye can occur. Sulfuric acid - repeated exposure to mist may cause chronic tracheobronchitis, erosion and discoloration of teeth. Prolonged inhalation to cerium fumes may cause emphysema.

Section 4 - First Aid Measures

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until chemical is gone. Get medical aid at once. Cover burns with loose sterile non-medicated bandages.

Skin:

Get medical aid at once. Wash clothing with soap and water before reuse. Remove contaminated clothing and shoes. Cover burns with a dry sterile bandage (secure, not tight).

Ingestion:

Do NOT induce vomiting. Get medical aid at once. Give 1 ounce of milk of magnesia. Give conscious victim large quantities of water to dilute acid.

Inhalation:

Get medical aid at once. Move victim to fresh air immediately. Give artificial respiration if necessary. Keep victim warm, at rest. Maintain airway, give oxygen (medical trained only), maintain blood pressure.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, cool with flooding amounts of water. Avoid breathing corrosive vapors. Heat generates sulfuric acid vapor and oxides of sulfur and nitrogen.

Extinguishing Media:

Use flooding quantities of water. Water spray, fog used to absorb corrosive vapors. Carbon dioxide may be used.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: Not published.
CAS# 7664-93-9: Not published.
CAS# 16774-21-3: Not published.

Explosion Limits:

Lower: Upper:



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Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Keep out of sewers/drains. Wear protective equipment. Absorb with inert material (sand, diatomaceous earth) scoop into non-metallic container, label "Corrosive" for later disposal. Neutralize with sodium bicarbonate. Ventilate area if solution hot, keep away from flames, incompatible materials.

Section 7 - Handling and Storage

Handling:

Handle as corrosive liquid, dispense with care; wear protective clothing, gloves, goggles.

Storage:

May be stored capped in plastic or glass at room temperature, protected from heat and incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Local exhaust ventilation may be necessary to control any air contaminant to within their TLV during the use of this product.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Sulfuric acid	1 mg/m ³ TWA; 3 mg/m ³ STEL	1 mg/m ³ TWA	1 mg/m ³ TWA;
Ceric ammonium nitrate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

OSHA Vacated PELs

Sulfuric acid: 1 mg/m³ TWA

Sulfuric acid: 1 mg/m³ TWA

Personal Protective Equipment

Eyes:

Provide an eye-wash fountain in the immediate work area. Do not wear contact lenses when working with chemicals.

Wear gloves, splash proof goggles and face shield.

Skin:

Wear acid protective clothing and gloves.

Clothing:

Wear acid protective clothing and gloves.



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Respirators:

50mg/M3 -GMAGHiEP/HiEPF/SAF/SCBAF.

100mg/M3 - SAF:PD,PP,CF.

Escape - GMAGHiEP/SCBA. Firefighting - SCBAF:PD,PP.

(Respirator Codes: DHEW (NIOSH) Publication No. 78-210)

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: Orange-yellow

Odor: Odorless

pH: Acidic

Vapor Pressure: No information found.

Vapor Density: No information found.

Evaporation Rate: No information found.

Viscosity: No information found.

Boiling Point: No information found.

Freezing/Melting Point: No information found.

Decomposition Temperature: No information found.

Solubility in water: Soluble.

Specific Gravity/Density: No information found.

Molecular Formula: No information found.

Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials.

Incompatibilities with Other Materials

Metals, reducing agents, chlorates, perchlorates, combustible and flammable materials (e.g. alkyl resins, asphalt, gasoline, grease, methyl acetone, polystyrene, polyurethane), organics, carbides, fulminates, picrates.

Hazardous Decomposition Products

Oxides of nitrogen, oxides of sulfur, sulfuric acid vapor.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 7664-93-9: WS5600000.

CAS# 16774-21-3 unlisted.



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LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 7664-93-9:

Inhalation, mouse: LC50 = 320 mg/m³/2H

Inhalation, rat: LC50 = 510 mg/m³/2H

Oral, rat: LD50 = 2140 mg/kg.

CAS# 16774-21-3:

No information found.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7664-93-9

ACGIH: A2 - Suspected Human Carcinogen (contained in strong inorganic acid mists)

California: Not listed.

NIOSH: Not listed.

NTP: Not listed.

OSHA: Select carcinogen

IARC: Group 1 carcinogen

CAS# 16774-21-3: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

Ceric ammonium nitrate-- may be corrosive to skin, eyes, respiratory and gastrointestinal tracts; may cause burns on contact. Sulfuric acid-- severe skin, eye, mucous membrane irritant.

Teratogenicity:

Reproductive:

Mutagenicity:

Neurotoxicity:

Section 12 - Ecological Information

No information found.

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Sulfuric acid

Hazard Class: 8

UN Number: UN2796

Packing Group: PG II

Section 15 - Regulatory Information

US Federal



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TSCA

CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 7664-93-9 is listed on the TSCA Inventory.
CAS# 16774-21-3 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ)

CAS# 7664-93-9: final RQ = 1000 pounds (454 kg)

CERCLA/SARA Section 313

This material contains Sulfuric acid (CAS# 7664-93-9, 5.7 - 11.4%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous

None of the components are on this list.

US State

State Right to Know

Sulfuric acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California Regulations

European/International Regulations

Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 7664-93-9 is listed on Canada's DSL List.
CAS# 16774-21-3 is listed on Canada's DSL List.

Canada Ingredient Disclosure List

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 7664-93-9 is listed on Canada's Ingredient Disclosure List.
CAS# 16774-21-3 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: November 15, 1997

Revision Date: April 4, 2007

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