



Material Safety Data Sheet Amine-Sulfuric Acid Solutions

Section 1 - Chemical Product and Company Identification

MSDS Name:

Amine-Sulfuric Acid Solutions

Catalog Numbers:

LC10870, LC10880

Synonyms:

None

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 or
011-703-527-3887

Section 2 – Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	>22
62778-12-5	N,N-dimethyl-1,4-phenylenediamine oxalate	7-27
7664-93-9	Sulfuric acid	50

Section 3 - Hazards Identification

Emergency Overview

Appearance: clear, slight amber to light pink solution

Danger! Corrosive and toxic. Causes severe burns by all exposure routes. May be fatal if swallowed. May cause skin sensitization.

Target Organs: eyes, skin, respiratory tract, teeth

Potential Health Effects

Eye:

Causes severe eye burns. May cause irreversible eye injury or blindness. May cause permanent corneal opacification.

Skin:

Causes severe skin burns. May cause skin sensitization.

Ingestion:

Causes gastrointestinal tract burns. May cause severe and permanent damage to the digestive tract.



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Inhalation:

May cause severe irritation or burns of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Exposure may impair lung function. Inhalation of mists may be fatal due to edema of the larynx and bronchi, spasm, inflammation, and chemical pneumonitis.

Chronic:

Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis. Prolonged or repeated inhalation may cause nosebleeds, nasal congestion, perforation of the nasal septum, chest pain, and bronchitis.

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.

Skin:

Get medical aid at once. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical aid at once. Give one ounce (30ml) 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. If breathing is difficult, give oxygen.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Contact with metals may evolve flammable hydrogen gas. Thermal decomposition may evolve toxic gases. Avoid breathing toxic and corrosive vapors.

Extinguishing Media:

Use extinguishing media most appropriate for the surrounding fire.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: Health-0, Flammability-0, Instability-0.

CAS# 62778-12-5: Health-3, Flammability-0, Instability-0.

CAS# 7664-93-9: Health-3, Flammability-0, Instability-2.

Explosion Limits:

Lower: n/a Upper: n/a



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Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

May be carefully neutralized with slaked lime, limestone, or sodium bicarbonate to a pH 7. Place in labeled plastic containers labeled for disposal, and wash area down with water.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use with adequate ventilation.

Storage:

Do not store near alkaline substances. Store in labeled non-reactive containers (glass, plastic) protected from heat and incompatible substances. Protect from light.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

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.
N,N-dimethyl-1,4-phenylenediamine oxalate	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	0.2 mg/m ³ TWA (thoracic fraction)	1 mg/m ³ TWA 15 mg/m ³ IDLH	1 mg/m ³ TWA

OSHA Vacated PELs:

Sulfuric acid: 1 mg/m³ TWA

Personal Protective Equipment**Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Provide an eye-wash fountain in the immediate work area. Do not wear contact lenses when working with chemicals.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

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.



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Section 9 - Physical and Chemical Properties

Physical State:	Liquid
Color:	Slight amber to light pink
Odor:	Odorless
pH:	<1
Vapor Pressure:	No information found.
Vapor Density:	3.38 (air = 1)
Evaporation Rate:	<ether
Viscosity:	No information found.
Boiling Point:	No information found.
Freezing/Melting Point:	No information found.
Decomposition Temperature:	340°C
Solubility in water:	Soluble
Specific Gravity/Density:	1.5
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, excess heat,.

Incompatibilities with Other Materials:

Metals, oxidizing agents, reducing agents, bases, nitrates, perchlorates, permanganates, picrates, organic materials, flammable liquids.

Hazardous Decomposition Products:

Oxides of sulfur, hydrogen gas, carbon monoxide, carbon dioxide, oxides of nitrogen.

Hazardous Polymerization:

Has not been reported.

Section 11- Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 62778-12-5: CZ1586550.

CAS# 7664-93-9: WS5600000.

LD50/LC50:

CAS# 7732-18-5:

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

CAS# 62778-12-5:

Oral, rat: LD50 = 25 mg/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.



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Carcinogenicity:

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

CAS# 62778-12-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7664-93-9: Listed as a carcinogen by ACGIH, IARC, NTP, OSHA, and CA Prop 65.

Epidemiology:

Workers exposed to industrial sulfuric acid mist showed a statistical increase in laryngeal cancer.

Teratogenicity:

Sulfuric acid was not teratogenic in mice and rabbits, but was slightly embryotoxic in rabbits. Slight maternal toxicity was present at the highest dose in both species.

Reproductive:

No information found

Mutagenicity:

No information found

Neurotoxicity:

No information found

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

	LC10870	LC10880
Shipping Name:	Corrosive liquid, toxic, nos	Sulfuric acid
Hazard Class:	8 (6.1)	8
UN Number:	UN2922	UN1830
Packing Group:	PG II	PG II

Section 15 - Regulatory Information

US Federal

TSCA:

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 62778-12-5 is listed on the TSCA Inventory.

CAS# 7664-93-9 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, 50%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.



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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:

WARNING: This chemical contains Sulfuric acid, listed as "Strong inorganic acid mists containing sulfuric acid," a chemical known to the state of California to cause cancer.

European/International Regulations

Canadian DSL/NDSL:

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 62778-12-5 is listed on Canada's DSL List.

CAS# 7664-93-9 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# 62778-12-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 7664-93-9 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: January 30, 1999

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