



## Material Safety Data Sheet

### Sulfuric Acid Solutions, 0.2N-12.0N (<50% w/w)

#### Section 1 - Chemical Product and Company Identification

**MSDS Name:**

Sulfuric Acid Solutions, 0.2N-12.0N (&lt;50% w/w)

**Catalog Numbers:**

LC25570, LC25580, LC25590, LC25600, LC25605, LC25607, LC25610, LC25620, LC25700,  
 LC25720, LC25730, LC25740, LC25770, LC25790, LC25800, LC25810, LC25830, LC25840,  
 LC25850, LC25870, LC25880

**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          | balance |
| 7664-93-9 | Sulfuric acid  | 1-50    |

#### Section 3 - Hazards Identification

##### Emergency Overview

**Appearance:** Clear, colorless solution**Danger!** Corrosive. Causes severe burns by all exposure routes. May be fatal if swallowed or inhaled.**Target Organs:** Eyes, skin, respiratory tract, teeth.**Potential Health Effects****Eye:**

Causes severe eye burns. May cause permanent eye damage, including blindness and permanent corneal opacity.

**Skin:**

Causes severe skin burns.



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**Ingestion:**

Causes severe gastrointestinal tract burns with nausea, vomiting and diarrhea. May cause perforation of the gastrointestinal tract.

**Inhalation:**

Causes burns of the respiratory tract. Inhalation of mists may be fatal as a result of inflammation and edema of the lungs, larynx, and bronchi.

**Chronic:**

Occupational exposure to strong inorganic acid mists containing sulfuric acid causes cancer. May cause chronic dermatitis, conjunctivitis, dental erosion, and bronchitis. Workers chronically exposed to sulfuric acid mists may show various lesions of the skin, tracheobronchitis, stomatitis, conjunctivitis, or gastritis.

## 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:**

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

**Ingestion:**

Do NOT induce vomiting. Give conscious victim 2-4 cupfuls of milk or water to dilute acid. Never give anything by mouth to an unconscious person. Get medical aid at once.

**Inhalation:**

Move victim to fresh air immediately. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Get medical aid at once.

**Notes to Physician:**

Monitor arterial blood gases, chest x-ray, and pulmonary function tests if respiratory tract irritation or respiratory depression is evident. Treat dermal irritation or burns with standard topical therapy. Effects may be delayed. Do NOT use sodium bicarbonate in an attempt to neutralize the acid.

## 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. Avoid breathing toxic and corrosive vapors. Do not get water inside containers.

**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# 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:**

Absorb with inert material such as sand, vermiculite, or diatomaceous earth, and transfer to a suitable container labeled for later disposal.

### 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. Do not breathe spray or mist. Do not use with metal containers or other implements.

**Storage:**

Do not store near alkaline substances or combustible materials. Store in a cool, dry area in labeled non-reactive containers (glass, plastic) protected from heat and incompatible substances.

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**

Facilities using or storing this material should be equipped with an eyewash and safety shower. 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. |
| Sulfuric acid  | 0.2 mg/m <sup>3</sup> TWA                | 1 mg/m <sup>3</sup> TWA<br>15 mg/m <sup>3</sup> STEL | 1 mg/m <sup>3</sup> TWA                  |

**OSHA Vacated PELs:**

Sulfuric acid: 1 mg/m<sup>3</sup> 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. 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. Always use a NIOSH-approved respirator when necessary.



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**Section 9 - Physical and Chemical Properties**

|                                   |                        |
|-----------------------------------|------------------------|
| <b>Physical State:</b>            | Liquid                 |
| <b>Color:</b>                     | Colorless              |
| <b>Odor:</b>                      | Odorless               |
| <b>pH:</b>                        | Acidic                 |
| <b>Vapor Pressure:</b>            | No information found.  |
| <b>Vapor Density:</b>             | No information found.  |
| <b>Evaporation Rate:</b>          | <ether                 |
| <b>Viscosity:</b>                 | No information found.  |
| <b>Boiling Point:</b>             | No information found.  |
| <b>Freezing/Melting Point:</b>    | No information found.  |
| <b>Decomposition Temperature:</b> | No information found.  |
| <b>Solubility in water:</b>       | Soluble with much heat |
| <b>Specific Gravity/Density:</b>  | 1.0 – 1.5              |
| <b>Molecular Formula:</b>         | No information found.  |
| <b>Molecular Weight:</b>          | No information found.  |

**Section 10 - Stability and Reactivity**

**Chemical Stability:**

Stable under normal temperatures and pressures.

**Conditions to Avoid:**

Incompatible materials, excess heat, water.

**Incompatibilities with Other Materials:**

Metals, oxidizing agents, reducing agents, bases, acrylonitrile, chlorates, finely powdered metals, nitrates, perchlorates, permanganates, epichlorohydrin, aniline, carbides, fulminates, picrates, organic materials, flammable liquids.

**Hazardous Decomposition Products:**

Oxides of sulfur, hydrogen gas.

**Hazardous Polymerization:**

Has not been reported.

**Section 11 - Toxicological Information**

**RTECS:**

CAS# 7732-18-5: ZC0110000.

CAS# 7664-93-9: WS5600000.

**LD50/LC50:**

CAS# 7732-18-5:

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

CAS# 7664-93-9:

Inhalation, mouse: LC50 = 320 mg/m<sup>3</sup>/2H

Inhalation, rat: LC50 = 510 mg/m<sup>3</sup>/2H

Oral, rat: LD50 = 2140 mg/kg.

**Carcinogenicity:**

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



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CAS# 7664-93-9: Listed as a carcinogen by ACGIH, IARC, NTP, OSHA, and CA Prop 65 (listed as Strong inorganic acid mists containing sulfuric acid).

**Epidemiology:**

See actual entry in RTECS for complete information.

**Teratogenicity:**

Not available

**Reproductive:**

Not available

**Mutagenicity:**

See actual entry in RTECS for complete information.

**Neurotoxicity:**

Not available

### 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:** PGII

### Section 15 - Regulatory Information

**US Federal**

**TSCA:**

CAS# 7732-18-5 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, 1-50%), 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.



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#### 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 product contains sulfuric acid, listed as strong inorganic 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# 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# 7664-93-9 is listed on Canada's Ingredient Disclosure List.

## Section 16 - Other Information

MSDS Creation Date: November 9, 1997

Revision Date: January 31, 2011

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