



Material Safety Data Sheet

Arsenious acid solution

Section 1 - Chemical Product and Company Identification

MSDS Name:

Arsenious acid solution

Catalog Numbers:

LC11520

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
1327-53-3	Arsenic trioxide	0.5
7664-93-9	Sulfuric acid	0.04

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Colorless

Caution! May cause irritation with possible injury by all exposure routes.

Target Organs: Noneknown.

Potential Health Effects

Eye:

Eyecontactmayresultinpain,photophobia,tearing,edema,cornealulceration,burns,anddeeptissueneerosis.

Skin:

Dermalburnsmayoccurdependingondurationofcontact.



Material Safety Data Sheet

Arsenious acid solution

Ingestion:

Ingestion may cause pain, nausea, vomiting, diarrhea, hematemesis, hypotension, nephritis, albuminuria, oliguria, anuria, hematuria, possible circulatory collapse.

Inhalation:

May cause coughing, headache, dizziness, weakness if inhaled.

Chronic:

May cause dermatitis and conjunctivitis. ARSENIC TRIOXIDE MAY CAUSE CANCER OF THE LUNGS, LARYNX, LYMPHATIC SYSTEM OR VISCERA. May result in chronic cough or bronchitis, diarrhea, nausea, weakness, anemia; central nervous and gastrointestinal systems as well as liver and kidney and cardiovascular involvement can occur.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once. Cover burns with loose sterile non-medicated bandages.

Skin:

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes. Cover burns with a dry sterile bandage (secure, not tight).

Ingestion:

Get medical aid at once. Give conscious victim large quantities of water to dilute acid. Do not use gastric lavage or induce vomiting. Medical personnel should maintain airway and respiration, treat for shock.

Inhalation:

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

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, avoid breathing vapors or dust. Wear self-contained breathing apparatus and protective clothing to prevent contact. Avoid breathing corrosive poisonous vapors (arsenic oxides).

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: Not published.

CAS# 1327-53-3: Not published.

CAS# 7664-93-9: Not published.

Explosion Limits:

Lower: Upper:



Material Safety Data Sheet

Arsenious acid solution

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Ventilate and wear protective clothing. Material should be neutralized, add filtering agent (10gm per 100ml); evaporate liquid, bag residual solid for burial in approved hazardous waste land site.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas. **DONOT PIPET OR TRANSFER BY MOUTH.**

Storage:

Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Provide local exhaust or general dilution ventilation. **WORK UNDER A FUME HOOD.**

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.
Arsenic trioxide	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;

OSHA Vacated PELs

Sulfuric acid: 1 mg/m³ TWA

Personal Protective Equipment

Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.



Material Safety Data Sheet

Arsenious acid solution

Respirators:

Not required for normal use. Firefighting--any self-contained breathing apparatus with full facepiece operated in pressure-demand mode. 100ug(As)/M3 - half-mask air-purifying resp. with high efficiency filter: half-mask Supplied Air Resp. 500ug(As)/M3 - powered air-purifying resp. with high efficiency filter, full facepiece; self-contained breathing apparatus with full facepiece. 10mg(As)/M3 - powered air-purifying resp. with high efficiency filter, full facepiece; half-mask supplied-air resp. operated in pos. press. mode. 20mg(As)/M3 - supplied-air resp., full facepiece, hood, helmet or suit operated in pos. press. mode.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: Colorless

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: No information found.

Specific Gravity/Density: 1.0

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

Oxidizing materials.

Hazardous Decomposition Products

Arsenic oxides.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 1327-53-3: CG3325000.

CAS# 7664-93-9: WS5600000.



Material Safety Data Sheet

Arsenious acid solution

LD50/LC50:

CAS# 7732-18-5:

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

CAS# 1327-53-3:

Oral, mouse: LD50 = 31500 ug/kg

Oral, rabbit: LD50 = 20190 ug/kg

Oral, rat: LD50 = 14600 ug/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.

Carcinogenicity:

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

CAS# 1327-53-3: 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

Epidemiology:

Eye, skin, mucous membrane irritant. May cause sensitization. Poisoning may affect gastrointestinal, cardiovascular, and central nervous systems, liver, and kidneys.

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: Arsenic compound liquid, n.o.s.
(Arsenic trioxide)

Hazard Class: 6.1

UN Number: UN1556



Material Safety Data Sheet

Arsenious acid solution

Packing Group: PG III

Section 15 - Regulatory Information

US Federal

TSCA

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

CAS#1327-53-3 is listed on the TSCA Inventory.

CAS#7664-93-9 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ)

CAS#1327-53-3: final RQ = 1 pound (0.454 kg)

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

CERCLA/SARA Section 313

Sulfuric acid is not at a high enough concentration to be reportable under Section 313.

OSHA - Highly Hazardous

None of the components are on this list.

US State

State Right to Know

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

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# 1327-53-3 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# 1327-53-3 is 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: September 9, 1998

Revision Date: September 10, 2007

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