



Material Safety Data Sheet
Arsenic AA Standard, 1ml=1mg As (1000ppm)

Section 1 - Chemical Product and Company Identification

MSDS Name:

Arsenic AA Standard, 1ml=1mg As (1000ppm)

Catalog Numbers:

LC11500

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	<1
7647-01-0	Hydrochloric acid	4-5

Section 3 - Hazards Identification

Emergency Overview

Appearance: Clear, colorless solution

Caution! Corrosive. Toxic. May cause severe eye, skin, respiratory and gastrointestinal tract irritation or burns. Contains inorganic arsenic, which is a cancer hazard. May cause lung, liver, and kidney damage. May cause adverse reproductive and fetal effects. May cause blood abnormalities, central nervous system effects, and cardiac disturbances.

Target Organs: Kidneys, central nervous system, liver, lungs, cardiovascular system, red blood cells, skin, respiratory and gastrointestinal systems, teeth.

Potential Health Effects**Eye:**

May cause irreversible eye injury, photophobia, tearing, edema, corneal ulceration, burns, and deep tissue necrosis.

Skin:

May cause severe skin irritation. Dermal burns may occur depending on duration of contact.



Material Safety Data Sheet

Arsenic AA Standard, 1ml=1mg As (1000ppm)

Ingestion:

May be fatal if swallowed. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death. May cause hemorrhaging of the digestive tract, throat constriction, nausea, diarrhea, convulsions, coma, and death.

Inhalation:

May cause severe respiratory tract irritation, coughing, choking, headache, dizziness, and weakness.

Chronic:

Arsenic trioxide may cause cancer in humans. Other long-term effects include anemia, liver and kidney damage, and nervous system effects such as numbness, tingling, burning pain, weakness, and incoordination.

Section 4 - First Aid Measures

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid at once.

Skin:

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

Ingestion:

Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Give conscious victim 2-4 glasses of water to dilute acid. Never give anything by mouth to an unconscious person. Get medical aid at once.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively. 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. Combustion generates irritating and toxic fumes. Move container if possible. Avoid breathing vapors or dust.

Extinguishing Media:

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

Autoignition Temperature:

Not applicable

Flash Point:

Not applicable

NFPA Rating:

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

CAS# 1327-53-3: Health- 3, Flammability- 0, Instability- 0

CAS# 7647-01-0: Health- 3, Flammability- 0, Instability- 1

Explosion Limits:

Lower: n/a Upper: n/a



Material Safety Data Sheet

Arsenic AA Standard, 1ml=1mg As (1000ppm)

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, diatomaceous earth) and place in labeled containers for later disposal. Material may be carefully neutralized with lime (calcium oxide.)

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, or clothing.

Storage:

Store capped at room temperature. Protect from heat and incompatibles. Do not store in metal containers.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Water	none listed	none listed	none listed
Arsenic trioxide	0.01 mg/m ³ TWA (as Arsenic), listed under Arsenic, inorganic compounds	5 mg/ml IDLH (as Arsenic), listed under Arsenic, inorganic compounds	10 µg/m ³ TWA (as Arsenic), listed under Arsenic, inorganic compounds (see 29 CFR 1910.1018)
Hydrochloric acid	2 ppm Ceiling	50 ppm IDLH	5 ppm Ceiling; 7 mg/m ³ Ceiling

OSHA Vacated PELs:

None listed

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 or European Standard EN166.

Skin:

Wear appropriate gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.



Material Safety Data Sheet

Arsenic AA Standard, 1ml=1mg As (1000ppm)

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.

Section 9 - Physical and Chemical Properties

Physical State:	Liquid
Color:	Colorless
Odor:	Slight pungent odor
pH:	Acidic
Vapor Pressure:	Not available
Vapor Density:	Not available
Evaporation Rate:	Not available
Viscosity:	Not available
Boiling Point:	Not available
Freezing/Melting Point:	Not available
Decomposition Temperature:	Not available
Solubility in water:	Soluble
Specific Gravity/Density:	1.0-1.1
Molecular Formula:	Not applicable
Molecular Weight:	Not applicable

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials, excess heat.

Incompatibilities with Other Materials:

Oxidizing agents, hydrogen fluoride, bases, metals.

Hazardous Decomposition Products:

Oxides of arsenic, arsine, hydrogen chloride, chlorine, hydrogen gas.

Hazardous Polymerization:

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000

CAS# 1327-53-3: CG3325000

CAS# 7647-01-0: MW4025000, MW4031000

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



Material Safety Data Sheet

Arsenic AA Standard, 1ml=1mg As (1000ppm)

Oral, rat: LD50 = 14600 ug/kg.

CAS# 7647-01-0:

Inhalation, rat: LC50 = 3124 ppm/1H

Oral, rabbit: LD50 = 900 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: Listed as a carcinogen by ACGIH, IARC, NTP, and CA Prop 65.

ACGIH: A1 – Confirmed Human Carcinogen

California: Carcinogen, initial date 2/27/87 (listed as Arsenic, inorganic compounds)

NTP: Known carcinogen

IARC: Group 1 carcinogen

CAS# 7647-01-0: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

Exposure to inorganic arsenic compounds has been causally associated with the development of cancer, primarily of the skin and lungs.

Teratogenicity:

Teratogenic effects, including exencephaly, skeletal defects, and genitourinary system defects, of arsenic compounds administered intravenously or intraperitoneally to high doses have been demonstrated in hamsters, rats and mice.

Reproductive:

May cause reproductive effects.

Mutagenicity:

No information found

Neurotoxicity:

No information found

Section 12 - Ecological Information

The half-life of arsenic trioxide in soil is 6.5 years. Arsenic tends to bioaccumulate.

Section 13 - Disposal Considerations

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

Section 14 - Transport Information

US DOT

Shipping Name: Hydrochloric acid solution

Hazard Class: 8

UN Number: UN1789

Packing Group: PGII



Material Safety Data Sheet

Arsenic AA Standard, 1ml=1mg As (1000ppm)

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# 7647-01-0 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):

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

CAS# 7647-01-0: final RQ = 5000 pounds (2270 kg)

CERCLA/SARA Section 313:

This material contains Arsenic trioxide (listed as Arsenic, inorganic compounds), <1%, (CAS# 1327-53-3) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

This material contains Hydrogen chloride, 4-5%, (CAS# 7647-01-0), 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 chemicals in this product are considered highly hazardous by OSHA.

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, Minnesota (listed as Arsenic, inorganic compounds).

Hydrochloric 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 Arsenic trioxide, listed as 'Arsenic, inorganic compounds', a chemical known to the state of California to cause cancer and developmental reproductive toxicity.

European/International Regulations

Canadian DSL/NDL:

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

CAS# 1327-53-3 is listed on Canada's DSL List.

CAS# 7647-01-0 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# 7647-01-0 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: August 21, 2008

Revision Date: August 29, 2008

Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc. assumes no liability resulting from the use of this MSDS. The user must determine suitability of this information for his application.