



Material Safety Data Sheet

Aluminum AA Standard, 1ml = 1mg Al

Section 1 - Chemical Product and Company Identification

MSDS Name:

Aluminum AA Standard, 1ml = 1mg Al

Catalog Numbers:

LC10750

Synonyms:

Aluminum Standard, 1000 ppm Al

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
7429-90-5	Aluminum	0.1
7647-01-0	Hydrochloric acid	4 - 5

Section 3 - Hazards Identification

Emergency Overview

Appearance: Clear, colorless solution

Warning! Corrosive. Causes eye and skin burns. Causes digestive and respiratory tract irritation.

Target Organs: Eyes, skin, respiratory tract.

Potential Health Effects

Eye:

Causes eye irritation and burns.

Skin:

Causes skin irritation and burns.

Ingestion:

Causes digestive tract irritation or burns with vomiting, nausea, and diarrhea.

Inhalation:

May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema.



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Chronic:

Chronic exposure may result in dental erosion, jaw necrosis, respiratory disease, dermatitis, conjunctivitis, corneal scarring and fever.

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 no evidence of chemical remains. 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.

Ingestion:

Do NOT induce vomiting. Give conscious victim 2-4 cupfuls of milk or water. 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:

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. Reacts with most metals to form highly flammable hydrogen gas, which can form explosive mixtures with air. Avoid breathing corrosive vapors.

Extinguishing Media:

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

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: Not published.

CAS# 7429-90-5: Not published.

CAS# 7647-01-0: Not published.

Explosion Limits:

Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.



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Spills/Leaks:

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in suitable containers labeled for later disposal. Large spills may be neutralized with dilute alkaline solutions of soda ash, or lime. Clean up spills immediately, observing precautions in the Protective Equipment section.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Use only in a well ventilated area. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use caution when opening.

Storage:

Store in a cool, dry area. Store in a tightly closed container.

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
Aluminum	total: 10 mg/m ³ TWA; respirable dust: 5 mg/m ³ TWA	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)	10 mg/m ³ TWA (metal dust)
Hydrogen chloride	None of the components are on this list	C 5 ppm; C 7 mg/m ³	None of the components are on this list

OSHA Vacated PELs:

Aluminum: total dust, as Al: 15 mg/m³ TWA; respirable fraction, as Al: 5 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.

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 29CFR 1910.134. Always use a NIOSH-approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid
Color: Colorless



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Odor:	Odorless
pH:	Acidic
Vapor Pressure:	14 mm Hg @ 20°C
Vapor Density:	0.7 (Air=1)
Evaporation Rate:	>1 (ether=1)
Viscosity:	No information found.
Boiling Point:	212°F (100°C)
Freezing/Melting Point:	32°F (0°C)
Decomposition Temperature:	No information found.
Solubility in water:	No information found.
Specific Gravity/Density:	1.0-1.2 (Water=1)
Molecular Formula:	Not applicable.
Molecular Weight:	No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

High temperatures, incompatible materials.

Incompatibilities with Other Materials:

Alkalis, metals, strong oxidants.

Hazardous Decomposition Products:

Hydrogen chloride, hydrogen gas.

Hazardous Polymerization:

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 7429-90-5: BD0330000.

CAS# 7647-01-0: MW4025000.

LD50/LC50:

CAS# 7732-18-5:

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

CAS# 7429-90-5:

No information found.

CAS# 7647-01-0:

Inhalation, mouse: LC50 = 1108 ppm/1H

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# 7429-90-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

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



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Epidemiology:

No information available.

Teratogenicity:

Embryo or Fetus: Stunted fetus, ihl-rat TCL0=450 mg/m3/1H Specific Developmental

Abnormalities: homeostatis, ihl-rat TCL0=450 mg/m3/1H

Reproductive:

No information available.

Mutagenicity:

Sln-dmg-ihl:100 ppm/24H sln-dmg-orl:100 ppm cyt-grh-par:20 mg cyt-ham lung:30 mmol/l cyt-ovr-ham:8 mmol/l

Neurotoxicity:

No information found

Section 12 - Ecological Information

Ecotoxicity:

Trout LC100=10 mg/l/24H, Shrimp LC50=100-330 ppm, Starfish LC50=100-330 mg/l/48H, Shore crab LC50=240 mg/l/48H, Chronic plant toxicity=100 ppm, Fish-toxicity LC50=862 mg/l

Environmental:

Substance will neutralize soil carbonate-based components.

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: PG II

Section 15 - Regulatory Information

US Federal**TSCA:**

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

CAS# 7429-90-5 is listed on the TSCA Inventory.

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

SARA Reportable Quantities (RQ):

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

CERCLA/SARA Section 313:

This material contains Hydrogen chloride (CAS# 7647-01-0, 4%), 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:

CAS# 7647-01-0 is considered highly hazardous by OSHA.

US State

State Right to Know:

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

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

California Regulations:

None

European/International Regulations

Canadian DSL/NDL:

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

CAS# 7429-90-5 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# 7429-90-5 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: July 14, 1998

Revision Date: January 15, 2010

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