

MATERIAL SAFETY DATA SHEET

Date Printed: 03/15/2005

Date Updated: 09/15/2004

Version 1.4

Section 1 - Product and Company Information

Product Name ALUMINUM, REAGENTPLUS(TM), 99 %, POWDER, PARTICLE SIZE -200 MESH
Product Number 214752
Brand ALDRICH

Company Sigma-Aldrich
Street Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS MO 63103 US
Technical Phone: 314 771 5765
Emergency Phone: 414 273 3850 Ext. 5996
Fax: 800 325 5052

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
ALUMINUM POWDER	7429-90-5	Yes

Formula Al
Synonyms A 00 * A 95 * A 995 * A 999 * AA 1099 * AA1199 * AD 1 * AD1M * ADO * AE * Aisin Metal Fiber * Alaun (German) * Allbri aluminum paste and powder * Alumina fibre * Aluminium * Aluminium bronze * Aluminium flake * Aluminum (ACGIH) * Aluminum 27 * Aluminum A00 * Aluminum dehydrated * Aluminum metal (OSHA) * Aluminum powder * AO Al * AR2 * AV00 * AV000 * C.I. 77000 * Emanay atomized aluminum powder * JISC 3108 * JISC 3110 * L16 * Metana * Metana aluminum paste * Noral aluminum * Noral Extra Fine Lining Grade * Noral Ink Grade Aluminum * Noral non-leafing grade * PAP-1 * aluminum

RTECS Number: BD0330000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Pyrophoric (USA) Highly Flammable (EU). Irritant.
Spontaneously flammable in air. Irritating to eyes and respiratory system.

HMIS RATING

HEALTH: 2
FLAMMABILITY: 3
REACTIVITY: 4

NFPA RATING

HEALTH: 2
FLAMMABILITY: 3
REACTIVITY: 4

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

FLAMMABLE HAZARDS

Flammable Hazards: Yes
Pyrophoric/Autoignition: Yes

EXPLOSION DATA

Dust Potential: This material, like most materials in powder form, is capable of creating a dust explosion.

FLASH POINT

N/A

AUTOIGNITION TEMP

760 °C

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Dry chemical powder.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Flammable solid. Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Avoid raising dust. Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Flammability	N/A
Autoignition Temp	760 °C
Refractive Index	N/A
Optical Rotation	N/A
Miscellaneous Data	N/A
Solubility	N/A

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Conditions of Instability: Air and moisture sensitive.
Materials to Avoid: Acids, Acid chlorides, Halogens, Oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Aluminum oxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: Causes eye irritation.
Inhalation: Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion: May be harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Aluminum powder, uncoated
UN#: 1396
Class: 4.3
Packing Group: Packing Group II
Hazard Label: Dangerous when wet.
PIH: Not PIH

IATA

Proper Shipping Name: Aluminium powder, uncoated
IATA UN Number: 1396

Hazard Class: 4.3
Packing Group: II

Section 15 - Regulatory Information

EU DIRECTIVES CLASSIFICATION

Symbol of Danger: F
Indication of Danger: Highly Flammable.
R: 15 17
Risk Statements: Contact with water liberates extremely flammable gases. Spontaneously flammable in air.
S: 7/8 43
Safety Statements: Keep container tightly closed and dry. In case of fire, use special powder for metal fire. Never use water.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Pyrophoric (USA) Highly Flammable (EU).
Irritant.
Risk Statements: Spontaneously flammable in air. Irritating to eyes and respiratory system.
Safety Statements: Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take precautionary measures against static discharges. Wear suitable protective clothing.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: Yes
DEMINIMIS: 1 %
NOTES: This product is subject to SARA section 313 reporting requirements.
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.