



MATERIAL SAFETY DATA SHEET

80 Northwest Boulevard
Nashua, NH 03063
1-800-225-3739

MSDS No.: AA0140 AA0141
Effective Date: January 1, 2007

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	Aluminum
Chemical Synonyms	Aluminum Metal
Formula	Al
Unit Size	up to 2.5 Kg.
C.A.S. No.	7429-90-5

CHEMTREC
800-424-9300
Day 585-226-6177

Health	0
Fire	1
Reactivity	1

NFPA

HAZARD RATING

MINIMAL	SLIGHT	MODERATE	SERIOUS	SEVERE
0	1	2	3	4

HMIS*

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Aluminum Metal, Powder	>99.5%	See Section V.
WARNING! FLAMMABLE! DANGEROUS WHEN WET!		

SECTION III PHYSICAL DATA

Melting Point (°F)	782°C (1439°F)	Specific Gravity (H ₂ O = 1)	2.7
Boiling Point (°F)	Not determined.	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	N/A	Evaporation Rate (=1)	N/A
Vapor Density (Air=1)	N/A		
Solubility in Water	Insoluble.		
Appearance & Odor	Silver gray colored metal-fine powder. No odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Flammable.	Flammable Limits in Air % by Volume	Unknown	Lower	Upper
Extinguisher Media	Class "D" dry chemical extinguishing agent or other suitable extinguishing material such as dry sand. Do not use class "A", "B", or "C" extinguishers or halogenated agents. Do not use water.				

SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Gently cover the burning powder and form a ring around it with the extinguishing agents referred to above. Do not actually mix the agent with the burning powder and do not disturb until it has cooled. At no time allow dust clouds to form.

(2004 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.9, GUIDE PAGE NO. 138)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Water and burning finely divided aluminum react violently, forming hydrogen gas and aluminum oxide. Aluminum powder dispersed in air becomes an explosion hazard. Aluminum particles will burn at a very high temperature as a mass of material or be potentially explosive if loosened and dispersed in air. Sensitive to static discharge.

SECTION V HEALTH HAZARD DATA AA0140

Threshold Limited Value TWA 10 mg/m³ (ACGIH 2001) as aluminum metal dust.

Effects of Overexposure **INHALATION:** It has been reported in the literature that chronic exposure to aluminum dust has been suspected of causing lung injury. **EYES:** Particles of aluminum in the eye may cause injury to the cornea. **INGESTION:** May cause irritation. Exercise appropriate procedures to minimize potential hazards. Target organs: Eyes, skin, respiratory system.

Emergency and First Aid Procedures **INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. **EYES:** Check for and remove contact lenses. Do NOT flush with water. Carefully remove particles with cotton tip applicator. Get immediate medical attention. **SKIN:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid	Heat, spark, flame, water and strong oxidizing agents.
	Stable	X		

Incompatibility (Materials to Avoid) Strong oxidizers, mineral acids, and strong alkalis, halogenated hydrocarbons, water.

Hazardous Decomposition Products Aluminum reacts with water, acids or alkalis to generate hydrogen gas.

Hazardous Polymerization	Conditions to Avoid			
	May Occur	Will Not Occur		
		X	Not applicable.	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Remove all ignition sources. Using plastic tools transfer spilled material to a fiber container. Recover when possible. Wash spill area well with soap and water.

Waste Disposal Method Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in accordance with federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None needed in normal laboratory handling. If dusty conditions prevail, wear a NIOSH/MSHA-approved dust mask or work in ventilation hood.

Ventilation	Local Exhaust	If needed.	Special	No.
	Mechanical (General)	Recommended.	Other	No.

Protective Gloves Rubber if sensitive to irritation. **Eye Protection** Chemical safety glasses.

Other Protective Equipment Goggles, safety glasses, lab coat, fire extinguisher, eye wash station.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Store in a dry place away from acids, oxidizers and alkalis. Wash thoroughly after handling. Dangerous when wet, take precautions. Keep container tightly closed when not in use.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Remove and wash contaminated clothing.

Revision No.	14	Date	01/01/07	Approved	James A. Bertsch	Chemical Safety Coordinator	JAB
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Approved by U.S. Department of Labor "essentially similar" to form OSHA-20