



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. AA 140  
Effective Date January 18, 1999

## SECTION V HEALTH HAZARD DATA

AA 140

**Threshold Limited Value** TWA 10 mg/m<sup>3</sup> (ACGIH 1992-93) 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.

**Emergency and First Aid Procedures**  
**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **SKIN:** Wash thoroughly with soap and water. **EYES:** Immediately flush eyes with plenty of water for 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention. **INGESTION:** Treat symptomatically and supportively. Get medical attention.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Heat, spark, flame, water, strong oxidizing agents.
	<b>Stable</b>	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.

<b>Hazardous Polymerization</b>		<b>Conditions to Avoid</b>	Not applicable.
<b>May Occur</b>	<b>Will Not Occur</b>		
	X		

## 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.

<b>Ventilation</b>	<b>Local Exhaust</b>	If needed.	<b>Special</b>	No.
	<b>Mechanical (General)</b>	Recommended.	<b>Other</b>	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.

Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

<b>Revision</b> No. 8	<b>Date</b> 1/18/99	<b>Approved</b> Michael Raszeja	<b>Chemical Safety Coordinator</b> MR
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## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	ALUMINUM METAL POWDER	 <b>CHEMTREC</b> 800-424-9300 Day 716-226-6177  <b>NFPA HAZARD RATING</b> LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4	<b>Health</b>	1
<b>Chemical Synonyms</b>	Aluminum		<b>Fire</b>	4
<b>Formula</b>	Al		<b>Reactivity</b>	2
<b>Unit Size</b>	up to 2.5 Kg.		<b>HMIS *</b>	
<b>C.A.S. No.</b>	7429-90-5			

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Aluminum Metal, Powder	>99.5	See Section V.
Silicon: (CAS No. 7440-21-3)	<1.0	5 mg/m <sup>3</sup> (Air).
Iron: (CAS No. 7439-89-6)	<1.0	5 mg/m <sup>3</sup> (Air).

**WARNING! FLAMMABLE SOLID. ALUMINUM POWDER DISPERSED IN AIR FORMS AN EXPLOSION HAZARD.**

## SECTION III PHYSICAL DATA

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

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	Flammable.	<b>Flammable Limits in Air % by Volume</b>	Unknown	<b>Lower</b>	40 mg/l	<b>Upper</b>	-----
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**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.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 138)

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Water and burning finely divided aluminum react violently, forming hydrogen gas and aluminum oxide. 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.

D.O.T. ALUMINUM POWDER, UNCOATED, 4.3, UN 1396, PG II

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20