



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. LL 201  
Effective Date July 6, 1998

## SECTION V HEALTH HAZARD DATA

LL 201

**Threshold Limited Value** None established. (ACGIH 1992-93).

**Effects of Overexposure** **HEALTH HAZARD:** Corrosive. **EYE CONTACT:** No toxicology data available. Corrosive. May cause blindness. **SKIN CONTACT:** No toxicology data available. Corrosive. **ACUTE OVEREXPOSURE:** Severe chemical burns to eyes and skin. **CHRONIC OVEREXPOSURE:** Not applicable.

**Emergency and First Aid Procedures** **EYES:** Remove particles, then flush with plenty of water, occasionally lifting the lower and upper lids, for at least 15 minutes. Obtain immediate medical attention. **SKIN:** Quickly brush off excess. Flush with plenty of water. If particles are embedded and cannot be removed, cover with mineral oil and do not flush with water. Obtain immediate medical attention.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Water, moist air.
	<b>Stable</b>	X		Avoid excessive temperatures or heat.

**Incompatibility (Materials to Avoid)** Moisture, acids, oxidizers, oxygen, nitrogen, carbon dioxide, elevated temperatures.

**Hazardous Decomposition Products** Reacts violently with water, the humidity in moist air and moisture in other substances, releasing hydrogen gas, which may catch fire explosively. Corrosive fumes of lithium oxide and/or lithium hydroxide are also released.

<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** To prevent ignition, coat with mineral oil (or kerosene), soaking thoroughly and place in oiled steel drums, closing them securely and tightly. Keep away from water, rain, snow, etc. Label or tag the metal drum with name and hazard of content.

**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.

Return to steel drum and store under oil until disposal time. Dispose of in accordance with federal, state and local regulations.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respiration Protection (Specify Type)** None needed.

<b>Ventilation</b>	<b>Local Exhaust</b>	None needed.	<b>Special</b>	No.
	<b>Mechanical (General)</b>	None needed.	<b>Other</b>	No.

**Protective Gloves** Plastic or rubber or asbestos. **Eye Protection** Chemical safety glasses.

**Other Protective Equipment** Goggles, rubber apron, fire-retardant coveralls, eye wash station, fire extinguishing materials, proper gloves.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Keep container filled with dry heavy mineral oil or kerosene. Store at room temperature in a dry place; avoid exposure to water, humid air, acids and oxidizing materials. Wash thoroughly after handling. Remove and wash contaminated clothing. 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. Keep lithium metal immersed in mineral oil or kerosene. Reacts violently with water to give off corrosive dust and flammable, explosive hydrogen gas. Elevated temperatures, above melting point (180.5°C/357°F), can result in spontaneous ignition in humid air.

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

<b>Revision</b> No. 5	<b>Date</b> 7/6/98	<b>Approved</b> Michael Raszeja	<b>Chemical Safety Coordinator</b> MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. \* Hazardous Materials Industrial Standards. Printed on recycled paper.

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	LITHIUM METAL, RODS	 <b>CHEMTREC</b> <b>800-424-9300</b> Day 716-226-6177	<b>Health</b>	3
<b>Chemical Synonyms</b>	Lithium Metal, Rods; Alkali Metal		<b>Fire</b>	3
<b>Formula</b>	Li		<b>Reactivity</b>	3
<b>Unit Size</b>	up to 2.5 Kg.		<b>NFPA HAZARD RATING</b> LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4	
<b>C.A.S. No.</b>	7439-93-2	<b>HMIS *</b>		

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Lithium Metal, Rods-Immersed in heavy mineral oil.	100%	None established.

**DANGER! FLAMMABLE SOLID! DANGEROUS WHEN WET.**

**CORROSIVE TO EYES, SKIN, NOSE AND THROAT.**

## SECTION III PHYSICAL DATA

<b>Melting Point (°F)</b>	180.5°C (357°F)	<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	0.534 at 25°C
<b>Boiling Point (°F)</b>	1317.0°C (2400°F)	<b>Percent Volatile by Volume (%)</b>	Non-volatile (NA).
<b>Vapor Pressure (mm Hg)</b>	1 mm at 723°C	<b>Evaporation Rate ( =1)</b>	Non-volatile (NA).
<b>Vapor Density (Air=1)</b>	Data not listed.		
<b>Solubility in Water</b>	Reacts violently. Produces extremely flammable hydrogen gas.		
<b>Appearance &amp; Odor</b>	A light, soft silvery metal immersed in heavy mineral oil; no odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	871°C (1600°F)	<b>Flammable Limits in Air % by Volume</b>	NA	<b>Lower</b>	<b>Upper</b>
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**Extinguisher Media** Dry lithium chloride, graphite powder, Pyrene G-1, dry sodium chloride dry (anhydrous) calcium oxide.

### SPECIAL FIREFIGHTING PROCEDURES

Keep lithium metal fire confined as much as possible to a small area; cover with dry lithium chloride. **DO NOT USE** water, moist sand, carbon dioxide or acid-soda ash fire extinguishers. Wear a NIOSH/MSHA-approved self-contained breathing apparatus; wear goggles if eye protection is not provided.

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

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Lithium reacts with water to form hydrogen and lithium hydroxide. Hydrogen resulting from the reaction may present an explosion hazard when mixed with air. Use of improper extinguishments for lithium fire control may introduce explosion or violent reaction hazard. Elevated temperatures can result in spontaneous ignition in air. Lithium metal can reignite after fire is initially extinguished. Never leave extinguished fire unattended. Carefully place residue in a steel drum, using a long-handled shovel, and cover with extinguishing media.

D.O.T. LITHIUM, 3, UN 1415, PG 1

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