



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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(716) 226-6177

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

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

Incompatibility (Materials to Avoid)	Moisture, acids, oxidizers, oxygen, nitrogen, carbon dioxide, elevated temperatures.
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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.
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Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	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.
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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.
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## SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)		None needed.			
Ventilation	Local Exhaust	None needed.	Special	No.	
	Mechanical (General)	None needed.	Other	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.
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**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.

Revision	No. 5	Date	7/6/98	Approved	Michael Raszeja	Chemical Safety Coordinator	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

Product	LITHIUM METAL, RODS
Chemical Synonyms	Lithium Metal, Rods; Alkali Metal
Formula	Li
Unit Size	up to 2.5 Kg.
C.A.S. No.	7439-93-2

3  
2  
2  
W

CHEMTREC  
800-424-9300  
Day 716-226-6177

NFPA  
HAZARD RATING

LEAST SLIGHT MODERATE HIGH EXTREME  
0 1 2 3 4

Health

3

Fire

3

Reactivity

3

HMIS \*

## 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

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

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	871°C (1600°F)	Flammable Limits in Air % by Volume	NA	Lower	Upper
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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