



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

1533 W. Henrietta Rd.
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(716) 226-6177

MSDS No. CC 30
Effective Date January 31, 1996

SECTION V HEALTH HAZARD DATA

CC 30

Threshold Limited Value

None established.

Effects of Overexposure

EYES: Severely irritating. May cause injury to eye tissue. **SKIN:** Causes irritation and possible corrosion damage. **INHALATION:** May cause respiratory tract irritation, cough, chemical pneumonia. **INGESTION:** May cause irritation or burns to mouth, throat, stomach. May cause vomiting. Solid material will cause skin and eye burns since it reacts with moisture to form caustic. Similarly, the fumes from burning calcium are highly irritating to skin, eyes, and mucous membranes.

Emergency and First Aid Procedures

SKIN: Wipe excess metal from skin. Wash with soap and copious amounts of water. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get prompt medical attention. **INGESTION:** If conscious, give water to drink. Do NOT induce vomiting. Call physician immediately. Never give anything by mouth to an unconscious person. **INHALATION AS DUST OR FUME:** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Seek immediate medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid
	Stable	

Unstable when exposed to moist atmosphere - heat. Acids.

Incompatibility (Materials to Avoid) Moisture from any source, alkali - metal hydroxides and carbonates, acids and organic materials.

Hazardous Decomposition Products Calcium and water react to produce hydrogen. Burning calcium is self-sustaining and strongly reducing to adjacent media.

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 Wear protective equipment and clothing. Collect spilled material for reclamation or disposal in sealed containers. Avoid contact with water. Avoid inhalation of dust.

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. Recycle or dispose of in an approved incinerator or contract with a licensed chemical waste disposal service.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) Normally none needed. A NIOSH/MSHA-approved dust filter mask if needed.

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

Protective Gloves Rubber. **Eye Protection** Chemical safety glasses.

Other Protective Equipment Safety goggles, face shield, smock, apron, eye wash station and a fire extinguisher.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Store in a cool, dry place. No smoking or open flames when opening container. Wash thoroughly after handling. 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. Store under kerosene or other neutral oil. Never store under halogenated hydrocarbons. Remove and wash contaminated clothing.

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

Revision	No. 8	Date	2/1/99	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	CALCIUM METAL	 <p>CHEMTREC 800-424-9300 Day 716-226-6177</p> <p>NFPA HAZARD RATING</p> <table border="1"> <tr> <td>LEAST</td> <td>SLIGHT</td> <td>MODERATE</td> <td>HIGH</td> <td>EXTREME</td> </tr> <tr> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </table> <p>HMIS *</p> <table border="1"> <tr> <td>Health</td> <td>1</td> </tr> <tr> <td>Fire</td> <td>2</td> </tr> <tr> <td>Reactivity</td> <td>2</td> </tr> </table>	LEAST	SLIGHT	MODERATE	HIGH	EXTREME	0	1	2	3	4	Health	1	Fire	2	Reactivity	2
LEAST	SLIGHT		MODERATE	HIGH	EXTREME													
0	1		2	3	4													
Health	1																	
Fire	2																	
Reactivity	2																	
Chemical Synonyms	Calcium Metal, Granular, Turnings, Nodules																	
Formula	Ca																	
Unit Size	up to 2.5 Kg.																	
C.A.S. No.	7440-70-2																	

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Calcium Metal: (CAS No. 7440-70-2)	98%	None established.
Magnesium Metal: (CAS No. 7439-95-4)	0.6%	None established.

WARNING! FLAMMABLE SOLID! A FIRE HAZARD.

KEEP DRY AND WELL CLOSED. DANGEROUS WHEN WET.

SECTION III PHYSICAL DATA

Melting Point (°F)	839°C (1544°F)	Specific Gravity (H ₂ O = 1)	1.54 @ 20°C
Boiling Point (°F)	1490°C (2718°F)	Percent Volatile by Volume (%)	Non-volatile (NA)
Vapor Pressure (mm Hg)	2.0 mm @ 839°C	Evaporation Rate	(=1) Non-volatile (NA)
Vapor Density (Air=1)	1.4		
Solubility in Water	Caution: Reacts violently with water to produce hydrogen gas.		
Appearance & Odor	Lustrous, silver-white surface when freshly cut, tarnishes to grayish-white on exposure to air; no odor. Granular, turnings or nodules.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable.	Flammable Limits in Air % by Volume	NA	Lower	Upper
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Extinguisher Media Use dry graphite, soda ash, powdered sodium chloride, sand, G-I powder.

SPECIAL FIREFIGHTING PROCEDURES

Do not use water or halogenated hydrocarbons such as Carbon Tetrachloride. Carbon dioxide and dry chemicals are ineffective. Wear a self-contained breathing apparatus; wear goggles. **USE:** Special mixtures of dry chemical or lime is only extinguishing agent to be used.

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

UNUSUAL FIRE AND EXPLOSION HAZARDS

Calcium reacts with water to form the hydroxide and hydrogen. Mixed with air, the liberated hydrogen may present an explosion hazard. Explosion or violent reaction may take place if care is not exercised in selecting extinguishants applied to a calcium fire. Finely divided calcium is considered pyrophoric and will cause an explosion when an ignition source is applied. Moderate explosion hazard in intimate contact with very powerful oxidizing agents.

D.O.T.	Calcium, 4.3, UN 1401, PG II
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Approved by U.S. Department of Labor "essentially similar" to form OSHA-20