

MATERIAL SAFETY DATA SHEET

OSHA-MEETS 29 CFR 1910.1200 STANDARDS

HMIS HAZARD RATINGS



HEALTH	0	0 = INSIGNIFICANT	3 = HIGH
FLAMMABILITY	1	1 = SLIGHT	4 = EXTREME
REACTIVITY	1	2 = MODERATE	

TRANSPORTATION INFORMATION

PROPER SHIPPING NAME : Not regulated
 HAZARD CLASS / PKG GRP : None / None REF: Not applicable
 IDENTIFICATION NUMBER : None LABEL: NONE REQUIRED

SECTION 1 - PRODUCT / COMPANY IDENTIFICATION

IDENTITY (AS USED ON LABEL AND LIST)
ALUMA LAP

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MANUFACTURER'S NAME
 Practical Systems, Inc.

EMERGENCY TELEPHONE NUMBER
 (727) 376-7900

ADDRESS (NUMBER, STREET, P.O. BOX)
 11617 Prospect Road
 (CITY, STATE AND ZIP CODE)
 Odessa, Florida 33556

TELEPHONE NUMBER FOR INFORMATION
 (727) 376-7900
 DATE PREPARED: May 11, 1997
 SUPERCEDES: June 14, 1993

SECTION 2 - HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

HAZARDOUS COMPONENTS (SPECIFIC CHEMICAL IDENTITY; COMMON NAME(S))	CAS#	% (OPTIONAL)	ACGIH TWA PPM	ACGIH STEL MG/M ³	SARA TITLE III	RQ LBS
Aluminum (fume or dust) (a)	7429-90-5	60-100		15	YES	
Chromium (a,b,c,d)	7440-47-3	< 1		1	YES	5000
Nickel (a,c,d)	7440-02-0	< 0.15	1		YES	100
Zinc (a,c)	7440-66-6	2.7-8.0	5	10	YES	1000

- (a) A "YES" in the SARA TITLE III column indicates a toxic chemical subject to annual reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.
- (b) Indicates that the Resource Conservation and Recovery Act (RCRA) has determined the waste for this chemical is listed as hazardous and must be handled according to regulations in 40 CFR 260-281.
- (c) Indicates the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) has notification requirements for releases or spills to the environment of the Reportable Quantity (RQ) this product = 12,000 lbs) or greater amounts, according to 40 CFR 302.
- (d) Indicates substance appears on National Toxicology Program (NTP) list of carcinogens, International Agency for Research on Cancer (IARC) list of carcinogens or is regulated by the Occupational Safety and Health Administration (OSHA) as a possible carcinogen.

SECTION 3 - HEALTH HAZARD DATA

ROUTES OF ENTRY - SIGNS AND SYMPTOMS OF EXPOSURE

EMERGENCY AND FIRST AID PROCEDURES

<p>INHALATION: Breathing excessive amounts of the dust or fumes may cause nose and throat irritation. Breathing excessive amounts of silica dust for a long time can cause silicosis.</p>	<p>Remove victim to fresh air, if symptoms persist, seek medical attention.</p>
<p>SKIN: None expected.</p>	<p>Use mild hand cream if irritation occurs.</p>
<p>EYES: Metal particles in the eyes may cause irritation if not removed.</p>	<p>Metal particles should be removed by trained individuals such as a nurse or physician.</p>
<p>INGESTION: Not likely to occur.</p>	<p>Not likely to occur.</p>

HEALTH HAZARDS (ACUTE AND CHRONIC): Acute effects are possible irritation and discomfort; no known chronic effects have been established.

CARCINOGENICITY: NTP? Yes IARC MONOGRAPHS? Yes OSHA REGULATED? Yes
 Nickel has been shown to cause cancer in laboratory animals. However, its potential to cause cancer in humans has not been determined. Water insoluble hexavalent chromium is classified as a human carcinogen by the ACGIH. There is no hexavalent chromium in this alloy or dust.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Preexisting skin, eye, or respiratory disorders may become aggravated through prolonged exposure.

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SECTION 4 - FIRE FIGHTING MEASURES

FLASH POINT (METHOD USED)

None in solid form

FLAMMABLE LIMITS

LEL: 45,000 mg

UEL:

UEL:

EXTINGUISHING MEDIA

In case of metal powder / dust fire, use a class "D" fire extinguishing agent (Lith-X, Dry Graphite, etc.); DO NOT USE WATER

SPECIAL FIRE FIGHTING PROCEDURES

None

UNUSUAL FIRE AND EXPLOSION HAZARDS

Like all combustible solids, dust from this product can form explosive mixtures in air. Explosive dust concentrations are usually very thick dust clouds not often found in working areas but can occur in process vessels, dust collectors or bulk loading operations.

SECTION 5 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: If damaged, return castings to vendor; place material into approved containers for disposal; for spills in excess of allowable limits (RQ) notify the National Response Center (800) 424-8802; refer to CERCLA 40 CFR 302 for detailed instructions; refer to SARA Title III, Section 313, 40 CFR 372 for reporting requirements.

SECTION 6 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures.

SECTION 7 - EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION (SPECIFY TYPE): NIOSH approved respirator designed to remove airborne particulate present in excess of maximum allowable concentrations due to operations such as spraying, sanding, buffing, etc.

VENTILATION

LOCAL EXHAUST: Recommended

SPECIAL: None

MECHANICAL (GENERAL): Yes

OTHER: None

PROTECTIVE GLOVES: Industrial gloves for handling castings

EYE PROTECTION: Goggles with side shields

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Safety eyebath nearby

WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

SECTION 8 - PHYSICAL / CHEMICAL PROPERTIES

BOILING POINT

4220 ° F (Aluminum)

SPECIFIC GRAVITY (WATER = 1)

2.708

VAPOR PRESSURE (MM HG)

Not applicable

pH

Not applicable

VAPOR DENSITY (AIR = 1)

Not applicable

EVAPORATION RATE (n-BUTYL ACETATE = 1)

Not applicable

SOLUBILITY IN WATER

Insoluble

% VOLATILE (BY WT)

None

APPEARANCE AND ODOR

Silver colored solid bars, odorless

SECTION 9 - STABILITY AND REACTIVITY

STABILITY

UNSTABLE:

STABLE: XXX

CONDITIONS TO AVOID:

Extreme temperatures

INCOMPATIBILITY (MATERIALS TO AVOID): Fine castings, dust and halogens or finely divided bromates, chlorates or iodates form an explosive mixture. The casting may react with caustics or acids to produce hydrogen gas, which is explosive.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

Thermal decomposition will not normally occur

HAZARDOUS POLYMERIZATION

MAY OCCUR:

WILL NOT OCCUR: XXX

CONDITIONS TO AVOID:

None

SECTION 10 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of in accordance with Local, State, and Federal Regulations. Do not flush to sanitary sewer or or waterway. Refer to "40 CFR Protection of Environment Parts 260-299" for complete waste disposal regulations. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals.

The information contained herein is believed to be accurate but is not warranted to be so. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

Form revised 09 / 95

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