

4167.

C24691-96

C24708-12

C24715-20

GUIDE

POTENTIAL HAZARDS

FIRE OR EXPLOSION

Cannot catch fire.

Container may explode in heat of fire.

HEALTH HAZARDS

Vapors may cause dizziness or suffocation.

Contact with liquid may cause frostbite.

EMERGENCY ACTION

Keep unnecessary people away; isolate hazard area and deny entry.

Stay upwind, out of low areas, and ventilate closed spaces before entering.

Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.

Isolate for 1/2 mile in all directions if tank, rail car or tank truck is involved in fire.

CALL CHEMTREC AT 1-800-424-9300 AS SOON AS POSSIBLE,
especially if there is no local hazardous materials team available.

FIRE

Move container from fire area if you can do it without risk.

Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks.

SPILL OR LEAK

Do not touch or walk through spilled material.

Stop leak if you can do it without risk.

FIRST AID

Move victim to fresh air and call emergency medical care; if not breathing, give artificial respiration; if breathing is difficult, give oxygen.

In case of frostbite, thaw frosted parts with water.

Keep victim quiet and maintain normal body temperature.

HRK-21-93 WED 13:45 WUPUNI SPURRING GULDS TEL NU: 1/15-344-6487

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MATERIAL SAFETY DATA SHEET

MANUFACTURED BY: GENERAL ELECTRIC CO. SILICONE PRODUCTS DIV. WATERFORD, NY 12188
EMERGENCY TELEPHONE(24 HRS) (518) 237-3330
REVISED: 10/21/85
PREPARER: DA POLSINELLI
SF96-50

***** I PRODUCT IDENTIFICATION *****

PRODUCT IDENTIFICATION: PALMER PLUNGER LUBE
PRODUCT IDENTIFICATION SF96-50 CHEMICAL FAMILY: POLYSILOXANES
CHEMICAL NAME: DIMETHYLPOLYSILOXANES FORMULA: SILICONE FLUID

***** II PRODUCT COMPONENTS *****

PRODUCT COMPOSITION	APPROX. %	ACGIH TLV	OSHA PEL	UNITS	CAS REG NO.
A. HAZARDOUS					
NONE	NA	NA	NA	NA	NA
B. NON-HAZARDOUS					
**PRODUCT INFORMATION	NA	NA	NA	NA	NA

***** III PHYSICAL DATA *****

**PRODUCT INFORMATION
BOILING POINT >400 (F) >204 (C)
PHYSICAL STATE LIQUID
VAPOR PRESSURE (20 C) NEG. MM HG
ODOR ODORLESS
VAPOR DENSITY (AIR=1) NONE
COLOR CLEAR
SOLUBILITY IN WATER (20 C) INSOLUBLE PH UNKNOWN
SOLUBILITY IN ORGANIC SOLVENT ACIDITY/ALKALINITY NEUTRAL MEG/G
(STATE SOLVENT) SOLUBLE, TOLUENE
FREEZING POINT NA (F) NA (C) DENSITY 958.5 KG/M3
MELTING POINT NA (F) NA (C) SPECIFIC GRAVITY (WATER=1) 0.97
% VOLATILE BY VOLUME <1 EVAPORATION RATE (BUTYL ACETATE=1) NONE

***** IV FIRE AND EXPLOSION DATA *****

FLASH POINT >400 (F) >204 (C) BY PMCC IGNITION TEMP UNK (F) UNK (C)
FLAMMABLE LIMITS IN AIR (%): LOWER NA UPPER NA
EXTINGUISHING MEDIA:
ALL STANDARD FIREFIGHTING MEDIA
DRY CHEMICAL
SPECIAL FIREFIGHTING PROCEDURES:
NONE KNOWN.

***** V REACTIVITY DATA *****

STABILITY: X STABLE UNSTABLE HAZARDOUS: POLYMERIZATION WILL NOT OCCUR
HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE.
CARBON DIOXIDE.
FORMALDEHYDE.

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INCOMPATIBILITY (MATERIALS TO AVOID):
NONE KNOWN.
CONDITIONS TO AVOID:
NONE KNOWN.

***** VI HEALTH HAZARD DATA *****

ACUTE SIGNS/EFFECTS OF OVEREXPOSURE:

INGESTION:

NONE KNOWN

SKIN CONTACT:

NONE KNOWN.

INHALATION:

NONE KNOWN.

EYE CONTACT:

MAY CAUSE MILD EYE IRRITATION.

MEDICAL CONDITIONS AGGRAVATED:

NONE KNOWN.

OTHER:

NONE KNOWN.

CHRONIC EFFECTS OF OVEREXPOSURE:

NONE KNOWN.

EMERGENCY AND FIRST AID PROCEDURES:

INGESTION:

NONE KNOWN.

SKIN:

WASH WITH SOAP AND WATER.

INHALATION:

NONE KNOWN.

EYES:

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION IF IRRITATION PERSISTS.

NOTE TO PHYSICIAN:

NONE KNOWN.

TOXICITY: **PRODUCT INFORMATION

ACUTE ORAL LD50 >40,000 MG/KG

ACUTE DERMAL LD50 NONE FOUND MG/KG

ACUTE INHALATION LC50 >535 MG/L (RAT)

OTHER

NON-IRRITATING TO SKIN (RBT).

AMES TEST: UNKNOWN

PRINCIPAL ROUTES OF EXPOSURE:

NONE KNOWN.

PRODUCTS/INGREDIENTS:

NONE KNOWN.

***** VII SPECIAL PROTECTIVE EQUIPMENT *****

RESPIRATORY PROTECTION:

NONE KNOWN.

PROTECTIVE GLOVES:

NONE KNOWN.

EYE AND FACE PROTECTION:

SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
NONE KNOWN.
VENTILATION:
NONE KNOWN.

*** VIII SPILL, LEAK AND DISPOSAL PROCEDURES ***
ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
WIPE OR SOAK UP IN AN INERT MATERIAL AND PUT IN A CONTAINER FOR
DISPOSAL.
WASH WALKING SURFACES WITH DETERGENT AND WATER TO REDUCE SLIP-
PING HAZARD.
DISPOSAL METHOD:
DISPOSAL SHOULD BE MADE IN ACCORDANCE WITH FEDERAL, STATE AND
LOCAL REGULATIONS.
INCINERATION RECOMMENDED.

***** IX SPECIAL PRECAUTIONS *****
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
NONE KNOWN.
ENGINEERING CONTROLS:
NONE KNOWN.

** X SHIPPING AND REGULATORY CLASSIFICATION DATA **

DOT SHIPPING NAME: NONE UN/NA NUMBER: NONE
DOT HAZARD CLASS: NONE
DOT LABEL(S): NONE
EPA HAZARD WASTE: NONE
OSHA HAZARD CLASS: NONE
CPSC CLASSIFICATION: NONE
TRANSPORTATION CLASS: IMO NONE
RID (OCTI) NONE
ADR (ECE) NONE
RAR (IATA) NONE

NFPA/HMIS CLASSIFICATION: FLAMMABILITY 0 , REACTIVITY 0 , HEALTH 0
ADDITIONAL INFORMATION:

THIS PRODUCT OR ITS COMPONENTS ARE ON THE EUROPEAN INVENTORY OF
EXISTING COMMERCIAL CHEMICALS (EINECS).
THESE DATA ARE OFFERED IN GOOD FAITH AS TYPICAL VALUES AND NOT
AS A PRODUCT SPECIFICATION. NO WARRANTY, EITHER EXPRESSED OR
IMPLIED, IS MADE. THE RECOMMENDED HANDLING PROCEDURES ARE
BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD
REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTENT OF THE
INTENDED USE.



MATERIAL SAFETY DATA

OCEAN NETWORK EMERGENCY PHONE 1-800-OLIN-911

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THIS PRODUCT MAY BE CONSIDERED TO BE A HAZARDOUS CHEMICAL UNDER THAT STANDARD. (REFER TO THE OSHA CLASSIFICATION IN SEC. I.) THIS INFORMATION IS REQUIRED TO BE DISCLOSED FOR SAFETY IN THE WORKPLACE. THE EXPOSURE TO THE COMMUNITY, IF ANY, IS QUITE DIFFERENT.

PRODUCT IDENTIFICATION: For PALMER CAP-CHUR CHARGES

I. PRODUCT IDENTIFICATION

REVISION NO : 3
REVISION DATE : 1/01/91
PRODUCT CODE : DPE020000
FILE NUMBER : DPE00165.0001
PRODUCT NAME: CENTER FIRE PRIMERS
SYNONYMS: 1 1/2, 8 1/2 Primer
CHEMICAL FAMILY: Mixture
FORMULA: Not Applicable/Mixture
DESCRIPTION: Small Arms Ammunition Primer
OSHA HAZARD CLASSIFICATION: Explosive, irritant to skin and eyes.

II. COMPONENT DATA

PRODUCT COMPOSITION

CAS or CHEMICAL NAME: Brass alloy 260
CAS NUMBER: Not Assigned/Mixture
PERCENTAGE RANGE: 85-89%
HAZARDOUS PER 29 CFR 1910.1200: Considered non-hazardous so long as used in such a manner as not to produce dust or fumes.
EXPOSURE STANDARDS: (See reference number 24, Section XV; Olin MSDS for Alloy 260.)

CAS or CHEMICAL NAME: Lead styphnate
CAS NUMBER: 15245-44-0
PERCENTAGE RANGE: 4-6%
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS:

	OSHA (PEL)		ACGIH (TLV)	
	ppm	mg/cubic-meter	ppm	mg/cubic-meter
TWA:		0.05		0.15
CEILING:	None		None	
STEL:	None		None	

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CAS or CHEMICAL NAME: Barium nitrate
CAS NUMBER: 10022-31-8
PERCENTAGE RANGE: 3.5-4.2%
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS: as Barium

	OSHA (PEL)		ACGIH (TLV)	
	ppm	mg/cubic-meter	ppm	mg/cubic-meter
TWA:		0.5		0.5
CEILING:	None		None	
STEL:	None		None	

CAS or CHEMICAL NAME: Antimony sulfide
CAS NUMBER: 1345-04-6
PERCENTAGE RANGE: 1.5-2.5%
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS: as Antimony

	OSHA (PEL)		ACGIH (TLV)	
	ppm	mg/cubic-meter	ppm	mg/cubic-meter
TWA:		0.5		0.5
CEILING:	None		None	
STEL:	None		None	

CAS or CHEMICAL NAME: Pentaerythrite tetranitrate
CAS NUMBER: 78-11-5
PERCENTAGE RANGE: 0.4-0.8%
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS: None Established

CAS or CHEMICAL NAME: Aluminum
CAS NUMBER: 7429-90-5
PERCENTAGE RANGE: 0.5-0.7%
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS:

	OSHA (PEL)		ACGIH (TLV)	
	ppm	mg/cubic-meter	ppm	mg/cubic-meter
TWA:		15		10
CEILING:	None		None	
STEL:	None		None	

CAS or CHEMICAL NAME: Tetracene
CAS NUMBER: 109-27-3
PERCENTAGE RANGE: 0.5-0.7%
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS: None Established



MATERIAL SAFETY DATA

CAS or CHEMICAL NAME: Lead thiocyanate
CAS NUMBER: 592-87-0
PERCENTAGE RANGE: 0.4-0.6%
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS: as Pb

	OSHA (PEL)	ACGIH (TLV)		
	ppm	mg/cubic-meter	ppm	mg/cubic-meter
TWA:		0.05		0.15
CEILING:	None		None	
STEL:	None		None	

CAS or CHEMICAL NAME: Nickel
CAS NUMBER: 7440-02-0
PERCENTAGE RANGE: 0.03-0.06%
HAZARDOUS PER 29 CFR 1910.1200: Yes
EXPOSURE STANDARDS:

	OSHA (PEL)	ACGIH (TLV)		
	ppm	mg/cubic-meter	ppm	mg/cubic-meter
TWA:				
INSOLUBLE		1		1
SOLUBLE		0.1		0.1
CEILING:	None		None	
STEL:	None		None	

III. PRECAUTIONS FOR SAFE HANDLING AND STORAGE

DO NOT TAKE INTERNALLY. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. UPON CONTACT WITH SKIN OR EYES, WASH OFF WITH WATER.

STORAGE CONDITIONS: Store in a cool dry place away from all sources of ignition.

DO NOT STORE AT TEMPERATURES ABOVE: 65.5 Deg.C (150 Deg.F)

DO NOT SUBJECT TO MECHANICAL SHOCK.

PRODUCT STABILITY AND COMPATIBILITY

SHELF LIFE LIMITATIONS: Indefinite at 50-90 Deg.F and 35% Relative humidity

INCOMPATIBLE MATERIALS FOR PACKAGING: Package only in DOT approved containers.

INCOMPATIBLE MATERIALS FOR STORAGE OR TRANSPORT: Class A & B explosives, strong oxidizers, acids and caustics

IV. PHYSICAL DATA

APPEARANCE: Brass cup assembly
FREEZING POINT: Not Applicable
BOILING POINT: Not Applicable
DECOMPOSITION TEMPERATURE: 82 Deg.C (180 Deg.F)
SPECIFIC GRAVITY: Not Applicable
BULK DENSITY: Not Applicable
pH @ 25 DEG.C: Not Applicable
VAPOR PRESSURE @ 25 DEG.C: Not Applicable
SOLUBILITY IN WATER: Not Applicable
VOLATILES, PERCENT BY VOLUME: Not Applicable
EVAPORATION RATE: Not Applicable
VAPOR DENSITY: Not Applicable
MOLECULAR WEIGHT: Not Applicable
ODOR: None
COEFFICIENT OF OIL/WATER DISTRIBUTION: Not Applicable

V. PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

PERSONAL PROTECTION FOR ROUTINE USE OF PRODUCT:

RESPIRATORY PROTECTION: Respiratory protection not normally needed. If significant dusting occurs, wear a NIOSH/MSHA approved dust respirator.

VENTILATION: Local exhaust ventilation is recommended if significant dusting occurs. Otherwise, use general exhaust ventilation.

SKIN PROTECTIVE EQUIPMENT: Impermeable gloves

OTHER: Safety glasses

EQUIPMENT SPECIFICATIONS (WHEN APPLICABLE):

RESPIRATOR TYPE: NIOSH/MSHA approved high efficiency dust respirator.
PROTECTIVE CLOTHING TYPE (This includes: gloves, boots, apron, protective suit): Impervious

VI. FIRE AND EXPLOSION HAZARD INFORMATION

FLAMMABILITY DATA:

FLAMMABLE: Not Applicable
COMBUSTIBLE: Not Applicable
PYROPHORIC: No
EXPLOSIVE: Yes
FLASH POINT: Not Applicable
AUTOIGNITION TEMPERATURE: No Data
FLAMMABLE LIMITS AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE (PERCENT VOLUME IN AIR): LEL - Not Applicable UEL - Not Applicable



MATERIAL SAFETY DATA

NFPA RATINGS: Not Established:

HMIS RATINGS:

Health: 1
Flammability: 0
Reactivity: 3

EXTINGUISHING MEDIA: Water spray Apply by mechanical means only. Fight all fires from a remote and explosion resistant site. Evacuate all non-essential personnel.

FIRE FIGHTING TECHNIQUES AND COMMENTS: Use water to cool containers exposed to fire. See Section XI for protective equipment for fire fighting.

VII. REACTIVITY INFORMATION

CONDITIONS UNDER WHICH THIS PRODUCT MAY BE UNSTABLE:

TEMPERATURES ABOVE: 82 Deg.C (180 Deg.F)

MECHANICAL SHOCK OR IMPACT: Yes

ELECTRICAL (STATIC) DISCHARGE: Yes

OTHER: Friction

HAZARDOUS POLYMERIZATION: Will not occur

INCOMPATIBLE MATERIALS: Acids, caustics, strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides, carbon monoxide

OTHER CONDITIONS TO AVOID: None known

SUMMARY OF REACTIVITY:

OXIDIZER: No

PYROPHORIC: No

ORGANIC PEROXIDE: No

WATER REACTIVE: No

OTHER: EXPLOSIVE

VIII. FIRST AID

EYES: Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If eye irritation develops, call a physician.

SKIN: May cause minor skin irritation. Cleanse skin by washing with soap and water.

INGESTION: Immediately drink water to dilute. Consult a physician if symptoms develop.

INHALATION: Not a likely route of exposure.

IX. TOXICOLOGY AND HEALTH INFORMATION

ROUTES OF ABSORPTION

Ingestion, skin and eye contact

WARNING STATEMENTS AND WARNING PROPERTIES

MAY BE HARMFUL IF INGESTED OR UPON SKIN OR EYE CONTACT.

HUMAN THRESHOLD RESPONSE DATA

ODOR THRESHOLD: No available data

IRRITATION THRESHOLD: No available data

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH: The IDLH concentration has not been established.

SIGNS, SYMPTOMS, AND EFFECTS OF EXPOSURE

INHALATION

ACUTE:

The product is a solid pellet. It is judged that the physical nature would preclude inhalation.

CHRONIC:

The product is a solid pellet. It is judged that the physical nature would preclude inhalation.

SKIN

ACUTE:

Skin contact may cause irritation consisting of transient redness. This irritant effect would not result in permanent damage.

CHRONIC:

No effects expected except those listed under acute skin contact.

EYE

Contact with the eyes would be expected to cause irritation consisting of reversible redness, swelling, and mucous discharge to the conjunctiva. No corneal involvement or visual impairment would be expected.

INGESTION

ACUTE:

If ingested, gastroenteritis may occur with nausea, vomiting, lethargy, and diarrhea.

CHRONIC:

No effects expected except those listed under acute ingestion.



MATERIAL SAFETY DATA

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None known or reported.

INTERACTIONS WITH OTHER CHEMICALS WHICH ENHANCE TOXICITY:

None known or reported.

ANIMAL TOXICOLOGY

ACUTE TOXICITY:

Inhalation LC 50: No available data

Dermal LD 50: No available data

Oral LD 50: No available data

Irritation: No available data

ACUTE TARGET ORGAN TOXICITY:

Skin and eyes

CHRONIC TARGET ORGAN TOXICITY:

Lead can cause damage to the blood, central and peripheral nervous systems, and kidney. Lead inhibits the production of hemoglobin, the material in the blood which carries oxygen. Anemia may result. Lead also causes damage to peripheral nerves resulting in a decrease in motor nerve and muscle function. Soluble barium compounds can affect muscle contractility adversely affecting smooth muscle and the heart. Antimony can damage the heart, liver, and kidneys. It is judged that the low percentage of these substances in, and the physical nature of, the product would preclude the development of these effects.

REPRODUCTIVE AND DEVELOPMENTAL TOXICITY:

Lead has been shown to affect fetal development and reduce male reproductive function. Lead crosses the placenta and may affect the fetus causing birth defects, mental retardation, behavioral disorders, and death during the first year of childhood. It is judged that the low percentage of lead in, and the physical nature of, the product would preclude the development of these effects.

CARCINOGENICITY:

This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA. However, lead is recognized as an animal carcinogen by IARC.

MUTAGENICITY:

This product is not known or reported to be mutagenic.

AQUATIC TOXICITY:

The LC 50 of lead (48 hrs.) to bluegill is reported to be 2-5 mg/l.

X. TRANSPORTATION INFORMATION

THIS MATERIAL IS REGULATED AS A DOT HAZARDOUS MATERIAL.

DOT DESCRIPTION FROM THE HAZARDOUS MATERIALS TABLE 49 CFR 172.101:
SMALL ARMS PRIMER

REPORTABLE QUANTITY: 100 lbs. (45.4 kg) (Per 49 CFR 172.101, Appendix)
(See Special Comments Below)

The material described above is subject to the U.S. DOT HAZARDOUS MATERIALS REGULATIONS via the modes and packaging quantities indicated below with the letter "x":

MODE	PACKAGING QUANTITIES	
<input checked="" type="checkbox"/> Rail	<input type="checkbox"/> Bulk	<input checked="" type="checkbox"/> Non-Bulk
<input checked="" type="checkbox"/> Motor	<input type="checkbox"/> Bulk	<input checked="" type="checkbox"/> Non-Bulk
<input checked="" type="checkbox"/> Water	<input type="checkbox"/> Bulk	<input checked="" type="checkbox"/> Non-Bulk
<input checked="" type="checkbox"/> Air	<input type="checkbox"/> Bulk	<input checked="" type="checkbox"/> Non-Bulk

The applicable packaging section in 49 CFR is 173.107.

SPECIAL COMMENTS: The REPORTABLE QUANTITY is applicable only if the centerfire primers have become a hazardous waste.

XI. SPILL AND LEAKAGE PROCEDURES

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC AT 800-424-9300.

REPORTABLE QUANTITY: Per 40 CFR 302.4 as lead thiocyanate (100 lbs.)

SPILL MITIGATION PROCEDURES: This product may represent an explosion hazard. Remove all sources of ignition. Stop source of spill as soon as possible and notify appropriate personnel.

AIR RELEASE: Not Applicable

WATER RELEASE: Not Applicable

LAND SPILL: Not Applicable

OTHER: A spill of this material will normally not require emergency response team capabilities. If however, a large spill occurs, contact OCEAN at 1-800-OLIN-911. At all times, use non-sparking tools and do not subject materials to mechanical shock.



MATERIAL SAFETY DATA

SPILL RESIDUES:

Dispose of per guidelines under Section XII, WASTE DISPOSAL.

PERSONAL PROTECTION FOR EMERGENCY SPILL AND FIRE-FIGHTING SITUATIONS:

No extra protection required beyond that listed in Section V. In case of fire, use normal fire fighting equipment.

XII. WASTE DISPOSAL

If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D003.

If this material becomes a waste, it can be sent to metal reclamation.

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

XIII. ADDITIONAL REGULATORY STATUS INFORMATION

TOXIC SUBSTANCES CONTROL ACT:

The components of this product are listed on the Toxic Substance Control Act inventory.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT TITLE III:

HAZARD CATEGORIES, PER 40 CFR 370.2:

HEALTH:

Immediate (Acute)

PHYSICAL:

Sudden release of pressure

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW, PER 40 CFR 355, APP.A:

EXTREMELY HAZARDOUS SUBSTANCE - THRESHOLD PLANNING QUANTITY:

None Established

SUPPLIER NOTIFICATION REQUIREMENTS, PER 40 CFR 372.45:

This mixture or tradename product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.

CHEMICALS LISTED ARE: Antimony compounds, barium compounds, lead compounds

XIV. ADDITIONAL INFORMATION

No Additional Information

XV. MAJOR REFERENCES

1. ACGIH Guide to Protective Clothing. Cincinnati, OH: American Conference of Government Industrial Hygienists, 1987.
2. ANSI Z88.2. Recommended Practice for Respiratory Protection. American National Standards Institute, New York, NY.
3. Baker, C. J., The Fire Fighter's Handbook of Hazardous Materials, 4th Ed., Indiana: Maltese Enterprises, Inc., 1984.
4. Bretherick, L., Handbook of Reactive Chemical Hazards, 3rd Ed., Boston, MA: Butterworths, 1985.
5. Casarett, L. and J. Doull, Eds., Toxicology: The Basic Science of Poisons, 3rd Ed., New York: Macmillan Publishing Co., Inc. 1986.
6. CERIS (Chemical Emergency Response Information System) On Line Database. Association of American Railroads.
7. Chemical Degradation and Permeation Database and Selection Guide for Resistant Protective Materials. Austin, TX.
8. Clayton, G. and F. Clayton, Eds., Patty's Industrial Hygiene and Toxicology, Vol. 2A-C 3rd Ed., New York: John Wiley & Sons, 1981-1982.
9. Code of Federal Regulations, Titles 21, 29, 40 and 49. Washington, DC: U.S. Government Printing Office.
10. Fire Protection Guide on Hazardous Materials, 9th Ed., National Fire Protection Association, Batterymarch Park, Quincy, MA, 1986.
11. Gosselin, R., et al., Gosselin-Clinical Toxicology of Commercial Products, 5th Ed., Baltimore: Williams and Wilkins, 1984.
12. Grant, W. Morton, M.D., Toxicology of the Eye, 2nd Ed., Springfield, IL: Charles C. Thomas, 1974.
13. Hazardline, Occupational Health Services Inc., New York, NY.
14. IARC Monogram on the Evaluation of Carcinogenic Risk of Chemicals to Man., Geneva: World Health Organization, International Agency for Research on Cancer.
15. Lenga, R., The Sigma-Aldrich Library of Chemical Safety Data, 1st Ed., Milwaukee, WI: Sigma-Aldrich Corporation, 1985.
16. Lewis, R. and D. Sweet, Eds., Registry of Toxic Effects of Chemical Substances, 1985-1986, Washington, DC: U.S. Government Printing Office, 1987.
17. Medline, U.S. National Library of Medicine, Bethesda, MD.
18. McKee, Jack E. and Harold W. Wolf, Eds., Water Quality Criteria, NTIS PB Report; (PB-82-188244), 2nd Ed., Springfield, VA: National Technical Information Services, 1963.
19. NIOSH Pocket Guide to Chemical Hazards. Washington, DC: U.S. Government Printing Office, 1985.
20. Olin Respiratory Protection Manual.

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MATERIAL SAFETY DATA

21. Sax, N. Irving, Dangerous Properties of Hazardous Materials 6th Ed., New York: Van Nostrand Reinhold Company, 1984.
22. Threshold Limit Values and Biological Exposure Indices for 1988-89. Cincinnati, OH: American Conference of Government Industrial Hygienists, 1987.
23. Toxic Substances Control Act Inventory, Washington, DC: U.S. Government Printing Office, 1986.
24. Olin Material Safety Data Sheet for Alloy 260, MSDS file number BPE00077.0011.

THE INFORMATION IN THIS MATERIAL SAFETY DATA SHEET SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. OLIN BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION, BUT MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MATERIAL SAFETY DATA SHEET IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT OLIN AT THE PHONE NUMBER LISTED BELOW TO MAKE CERTAIN THAT THIS SHEET IS CURRENT.

OLIN MSDS CONTROL GROUP
Olin Corporation
120 Long Ridge Road
Stamford, CT 06904

Phone Number: (203) 356-3449

OLIN CORPORATION SUBSIDIARIES AND AFFILIATED ENTITIES: ASAHI-OLIN LTD., BRIDGEPORT BRASS CORPORATION, INDY ELECTRONICS, INC., OLIN CHLORATE CORPORATION, OLIN FABRICATED METAL PRODUCTS INC., OLIN HUNT SPECIALTY PRODUCTS INC., OLIN ELECTRONICS TECHNOLOGY, OLIN MESA CORP., OLIN SPECIALTY METALS CORPORATION, PACIFIC ELECTRO DYNAMICS, INC., PHYSICS INTERNATIONAL COMPANY, ROCKET RESEARCH COMPANY, OCG MICROELECTRONIC MATERIALS, INC.

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