


MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

MANUFACTURER'S NAME: Ensign Products Company Inc. DATE: 06/17/86
 ADDRESS: 3529 E. 75th St., Cleveland, Ohio 44105-1598
 TELEPHONE NUMBER: 216-341-5911
 PRODUCT NAME: ENSIGN #53 ALUMINUM SOLDER
 CHEMICAL NAME: N/A
 CHEMICAL FAMILY: N/A



Distributed By -
FREEMAN Mfg. & Supply Co.
 1101 MOORE ROAD
 AVON, OHIO 44011-1011 (800) 321-8511

SECTION 2 - INGREDIENTS

HAZARDOUS COMPONENT	OSHA PEL	CAS NUMBER
LEAD	30 ug/M3	7439-92-1
TIN (dust)	2 mg/M3	7440-31-5
ZINC	5 mg/M3	7440-66-6

SECTION 3 - PHYSICAL PROPERTIES

BOILING PT.: 2348^o f. SPECIFIC GRAVITY (H₂O=1) 11.1
 VAPOR PRESSURE (mm Hg.): 760 at 3184^o f. VAPOR DENSITY (AIR=1) N/A
 SOLUBILITY IN WATER: Insoluble EVAPORATION RATE: (butyl acetate=1): <1
 MELTING POINT ^oF.: 630 APPEARANCE & ODOR: Silver grey, solid, odorless.

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (ASTM D92) ^oF: Non-Flammable AUTOIGNITION TEMP. ^oF: _____
 FLAMMABLE LIMITS: _____ LEL N/A UEL N/A
 EXTINGUISHING MEDIA: All
 UNUSUAL FIRE & EXPLOSION HAZARDS: None

SPECIAL FIRE FIGHTING PROCEDURES: Use self-contained breathing apparatus.

SECTION 5 - HEALTH DATA AND FIRST AID PROCEDURES

ROUTES OF ENTRY: Inhalation; Yes Skin; No Ingestion; Yes
 HEALTH HAZARDS: (ACUTE AND CHRONIC) SEE OSHA subpart Z(49.CFR)(1910.1025)
 CARCINOGENICITY: Not determined NTP? NO IARC Monographs? NO OSHA Regulated? YES.

SIGNS AND SYMPTOMS OF EXPOSURE: See OSHA subpart Z(49.CFR)(1910.1025)
 MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: SEE OSHA subpart Z(49.CFR)(1910.1025)

EYE CONTACT: Flush with water for 15 minutes - Seek Medical attention.

SKIN CONTACT: Flush with water immediately - Seek Medical attention.

INHALATION: Remove to fresh air. Support respiration if required. Seek Medical attention.

INGESTION: Drink large amounts of water - Seek Medical attention. Never give liquids to an

SECTION 6 - REACTIVITY DATA

STABLE UNSTABLE CONDITIONS TO AVOID: NoneINCOMPATIBILITY: Oxidizing materials.HAZARDOUS DECOMPOSITION PRODUCTS: Toxic fumesHAZARDOUS POLYMERIZATION PRODUCTS - No Yes CONDITIONS TO AVOID: NoneCORROSION - No Yes MATERIAL

SECTION 7 - ENVIRONMENTAL PROTECTION

SPILL & LEAK PROCEDURE - LARGE SPILL: Vacuum, absorb or flush in to a chemical sewer. Do not use any method which will generate dust.WASTE DISPOSAL PRECAUTIONS: Dispose of in accordance with all local, state and federal regulations. Avoid contact with fumes and dust.

SECTION 8 - SPECIAL PROTECTION

RESPIRATORY: 30 ug/M3 - half mask; 2.5 mg/M3 - full mask;
50 mg/M3 - self-sustained respiratory suit.VENTILATION: Local exhaust preferred. Special HEPA filters required. Mechanical OK.PROTECTIVE GLOVES: ImperviousEYE PROTECTION: Goggles or face shield.OTHER PROTECTION: As required to avoid contact. Wash up after use, follow good industrial hygienic practices.

SECTION 9 - SPECIAL PRECAUTIONS

HANDLING & STORAGE: See Section 7/Environmental ProtectionDOT HAZARDOUS LABEL REQUIRED: No Yes Specify: OTHER PRECAUTIONS: See OSHA 29 CFR (1910.1025); AVOID CONTACT WITH FUMES AND DUST.DISCLAIMER OF LIABILITY: The information presented herein is believed to be factual as it has been derived from the work and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as warranty or representation for which ENSIGN PRODUCTS, INC. bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.