MATERIAL SAFETY DATA SHEET
ALP-21    ALUMINUM SOLDER PASTE

SOLDER-IT™, INC.
P.O. BOX 576
ARMONK, NEW YORK 10504

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IDENTITY: (As used on label and list)    ALUMINUM SOLDER PASTE

MANUFACTURER'S NAME: SOLDER-IT™, INC.
ADDRESS: P.O. BOX 576
          ARMONK, N.Y. 10504
EMERGENCY PHONE NUMBER: 914-747-1092
PHONE NUMBER FOR INFORMATION: 914-747-1092
DATE PREPARED: MARCH 24, 1994
NAME OF PREPARER:

HAZARDOUS COMPONENTS CAS. # OSHA PEL OCGIH TLV ACGIH TLV OTHER STEL % OR RANGE
TIN 7440-31-5 2 mg(Sn)/m3 2 mg/m3 4 mg/m3 < 80
SILVER 7440-22-4 10 ug/m3 100 ug/m3 < 5
BISMUTH 7440-69-9 NOT ESTAB. NOT ESTAB. < 5
PETROLATUM 8009-03-8 NOT ESTAB. NOT ESTAB. < 29
GLYCERINE 56-81-5 NOT ESTAB. 10 mg/m3 (MISTS) < 6
ZINC AMMONIA CHLORIDE 7646-85-7 1mgFUME/m3 1 mg/m3 2 mg/m3 < 2
AMMONIUM FLUROBORATE 13826-83-0 2.5 mg (F) / m3 2.5 mgF/m3 < 9
AMINOETHYLETHANOLAMINE 111-41-1 NOT ESTABLISHED NOT ESTABL. < 9
ZINC OXIDE (AS FUME) 1314-13-2 5 mg/m3 5 mg/m3 < 7

NOTE: SILVER IS A CERCLA HAZARDOUS SUBSTANCE RELEASES OR WHICH ARE REPORTABLE UNDER CERCLA AND SARA TITLE 111, SECTION 304 WHEN IN EXCESS OF 1000 POUNDS OF SILVER (20,000 POUNDS OF THIS PRODUCT).

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point N/A
Vapor Pressure (mm Hg) Nil
Vapor Density (Air=1) N/A
Specific Gravity (H20=1), (approx)2.66
Melting Point 132° F
Evaporation Rate (Butyl Acetate=1) Nil
Solubility in Water: LESS THAN 2%
Appearance and odor: GRAY PASTE WITH BLAND ODOR.
SECTION IV- FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): 400°F (OC) Flammable Limits: - LEL UNK, UEL -UNK.
Extinguishing Media: DRY CHEMICAL, ALCOHOL FOAM OR CARBON DIOXIDE.
Special Fire Fighting Procedures: PRODUCT EXPOSED TO HIGH TEMPERATURES MAY PRODUCE TOXIC FUMES. FIREFIGHTERS SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR.
Unusual Fire And Explosion Hazards: HEATED CONTAINERS MAY RUPTURE VIOLENTLY. COOL WITH A WATER MIST TO PREVENT OVERHEATING.

SECTION V- REACTIVITY DATA

Stability: Stable
Incompatibility (Materials to Avoid): Avoid flames. Do not mix with acids, oxidizing agents, sulfur or chlorine.
Hazardous Decomposition or Byproducts: Heat and carbon dioxide. Exposure to strong acids can produce toxic organic and inorganic tin and silver compounds. Acrolein.
Hazardous Polymerization: Will Not Occur.

SECTION VI- HEALTH HAZARD DATA

Route(s) of Entry:
Inhalation? Mists are extremely irritating.
Skin? May be irritating.
Ingestion? May result in irritation to gastrointestinal tract.
Eyes? May be irritating.

Health Hazards (Acute and Chronic): On rare occasions, after prolonged or repeated exposure to mists of Petrolatum, some individuals may experience shortness of breath and cough.

Carcinogenicity:
NTP? Ingredients not on list.
IARC monographs? Ingredients not on list.
OSHA Regulated? NO

Signs and Symptoms of Exposure:
INHALATION- Irritation of respiratory system with possible difficulty in breathing.
INGESTION- Small amounts may cause gastric distress, diarrhea and vomiting.
SKIN CONTACT- Irritation.
EYE CONTACT- irritation, possibly severe.

Medical Conditions Generally Aggravated by Exposure: Unknown

Emergency and First Aid Procedures:
INGESTION- Do not induce vomiting. GET MEDICAL ATTENTION IMMEDIATELY.
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INHALATION- Remove victim to fresh air. If breathing has stopped, administer artificial respiration. If breathing does not return to normal within a few minutes, GET MEDICAL ATTENTION IMMEDIATELY!

EYE CONTACT- immediately flush eyes in clear running water for at least 15 minutes lifting upper and lower lids periodically. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT- Flush skin with plenty of water for at least 15 minutes

SECTION VII- PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled:
SPILLS- Absorb on inert material such as clay, vermiculite or sand. Place in sealable container for disposal as hazardous waste.
Waste Disposal Method: Non-hazardous. NOTE: THIS PRODUCT CONTAINS-MATERIALS WHICH ARE CERCLA HAZARDOUS WASTES. DISPOSE IN AN APPROVED HAZARDOUS WASTE SITE. LARGE SPILLS ARE REPORTABLE UNDER SARA TITLE 111, SECTION 304.
Other Precautions: KEEP THIS AND ALL CHEMICALS OUT OF REACH OF CHILDREN.

SECTION VIII- Control Measures

Respiratory Protection (Specify Type): FOR EXPOSURE BELOW TLV AND PEL VALUES (SEE SECTION 11) THE USE OF A PARTICLE MASK IS RECOMMENDED. FOR EXPOSURE ABOVE TLV AND PEL USE NIOSH/MSHA SA/CF (WITH EYE PROTECTION)/PAPRHE (WITH EYE PROTECTION). FOR ESCAPE USE HIEF/SCBAE.
Ventilation: LOCAL EXHAUST TO KEEP EXPOSURE BELOW TLV AND PEL VALUE.
Protective Gloves: Rubber or neoprene
Eye Protection: Chemical goggles or face splash shield.
Other Protective clothing or Equipment: Use chemical resistant apron to prevent excessive skin contact.
Work/Hygienic Practices: Wash product from clothes and skin. Use good housekeeping practices.
Storage and handling: STORE AWAY FROM SOURCES OF HEAT, SPARK AND FLAME. DO NOT STORE WITH OR NEAR ACIDS OR OXIDIZING MATERIALS.

SECTION IX - Additional Information

ENVIRONMENTAL

BIODEGRADABILITY: ORGANIC PORTION IS BIODEGRADABLE.
WASTE DISPOSAL METHODS: DISPOSE OF IN AN AUTHORIZED WASTE FACILITY IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

ADDITIONAL INFORMATION
EMPTY CONTAINER HANDLING: WARNING! EMPTIED CONTAINER RETAINS PRODUCT RESIDUE. OBSERVE ALL PRECAUTIONS EVEN AFTER CONTAINER ISempted. KEEP EMPTY CONTAINER CLOSED TIGHTLY.
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SARA TITLE III REPORTING REQUIREMENTS

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES  REPORTING NOT REQUIRED

SECTION 304 - HAZARDOUS RELEASES  REPORTING REQUIRED FOR SPILLS OVER 20,000 LBS.

SECTION 311 - COMMUNITY RIGHT TO KNOW (R-T-K)  REPORTING REQUIRED FOR INVENTORIES ABOVE THRESHOLD PLANNING QUANTITY (TPQ)

SECTION 312 - R-T-K INVENTORY DATA  REPORTING REQUIRED FOR INVENTORIES ABOVE THRESHOLD PLANNING QUANTITY (TPQ)

SECTION 313 - EMISSIONS AND RELEASE  REPORTING NOT REQUIRED

CERCLA HAZARDOUS MATERIALS  SAME AS SECTION 304.

REFERENCES

TOXIC SUBSTANCE CONTROL ACT LIST (TSCA) - INGREDIENTS LISTED.

PERMISSIBLE EXPOSURE REFERENCES:

REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
TITLE 29 CODE OF FEDERAL REGULATIONS

NATIONAL TOXICOLOGY PROGRAM (NTP) REPORT ON CARCINOGENS

INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) MONOGRAPHS

REGULATORY STANDARDS:

DOT TITLE 49 CODE OF FEDERAL REGULATIONS 172.101
SARA TITLE III

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