MATERIAL SAFETY DATA SHEETS (MSDS) On-Line OSHA-Required Health And Safety Information!

Section 1

MATERIAL SAFETY DATA SHEET # 1

Solder 50/50

Date Prepared: 03-Mar-94 Last Reviewed: 03-Mar-94

Meets OSHA 29 CFR 1910.1200

Section 2 - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Comman Name(s), CAS Numbers)	OSHA PEL	ACGIH TLV	Other Limits	% Upper Bound Limits if SARA Reportable
Lead (7439-92-1)	0.05mg/M^3	0.05mg/M^3	N/A	45
Tin (7440-31-5)	2.0mg/M^3	2.0mg/M^3	N/A	- -
Zinc Chloride (7646-85-7)	1.0mg/M^3	1.0mg/M^3 (fumes)	N/A	8
Ammonium Chloride (12125-02-9)	N/A	10.0mg/M^3 (fumes)	N/A	- -

HMIS Hazard Rating: Health: 4 Flammability: 0 Reactivity: 1 Personal Protection: C

Section 3 - Physical/Chemical Characteristics

Boiling Point (°F):	Specific Gravity (H_20=1):	Vapor Density (Air=1):	Vapor Pressure (mm Hg):
2948 For Solder Powder	4.5	N/A	N/A

Melting Point (°F):	Evaporation Rate (Butyl Acetate=1):	Solubility in Water:
418		Slightly miscible with water

Appearance And Color: Gray silvery paste. **Odor:** None

Section 4 - Fire And Explosion Hazard Data

Flash Point:	Flammable Limits:	LEL:	UEL:
N/A	N/A		

Extinguishing Media: Carbon dioxide, dry chemical or fog (water).

Special Firefighting Procedures:
None

Unusual Fire And Explosion Hazards:
With excessive heating, material could emit toxic fumes.

Section 5 - Reactivity Data

Stability: Stable	**Conditions To Avoid:** None
Incompatability (Materials To Avoid):	Zinc chloride is incompatible with cyanides (may release toxic HCN gas) and sulfide salts (may relaease toxic H^2S gas)
Hazardous Decomposition:	Will not occur except at high tempertures
Hazardous Polymerizatrion:	Will Not Occur except at high temperatures

Section 6 - Health Hazard Data

Routes of Entry: **Inhalation?** yes/secondary **Skin?** yes/primary **Ingestion?** yes/primary

Health Hazards:
Lead is suspected of causing cancer in the lung & kidney. Acute lead poisoning will result in Gastro Intestinal, Mucous & Renal Tubular degeneration. Chronic lead poisoning will cause Cerebral Edema & degeneration of nerve and muscle cells.

Carcinogenicity: **NTP?** NO **IARC?** NO **OSHA Regulated?** YES

Signs And Symptoms of Exposure:
INGESTION: Severe damage to internal organs (esophagus & pylorus) will occur if swallowed in large quantities. Lead is suspected of causing cancer in the lung & kidney in humans. Prior to cancer, the symptoms of nephritis, neuritis, encephalopathy, anemia, intestinal colic, marked constipation, arteriosclerosis, lead-line of gums can appear as warning of worker exposure. INHALATION: Dust from dried down product can cause injury to respiratory tract. Severe exposure can cause lung damage. SKIN CONTACT: prolonged contact causes burns, skin irritation with discomfort with rash. EYE CONTACT: Will cause eye irritation with discomfort, tearing or blurring of vision.

Medical Conditions Generally Aggravated By Exposure:
Advanced state of lead poisoning can cause loss of appetite, constipation, nausea, vomiting, jaundice, premature aging, weight loss, lethargy.

Emergency And First Aid Procedures:
INGESTION: Do not induce vomiting. If conscious, dilute by giving large quantities of water or milk. Call a physician immediately. INHALATION: If excess dust from dried product is inhaled, remove to fresh air; if not breathing, give artificial respiration preferably mouth to mouth. If breathing is difficult give oxygen. Call a physician. SKIN CONTACT: Wash affected skin area with soapy water. Remove contaminated clothing. If burn or rash appears consult a physician. EYE CONTACT: Immediately flush eyes with plenty of water for 15 minutes. Consult a physician.

Section 7 - Precautions For Safe Handling And Use:

Steps To Be Taken In Case Material Is Released Or Spilled:
Flush with large quantities of water & pick up with absorbing materials.

Waste Disposal Method:
Landfill. To dispose of large quantities, comply with federal, state and local regulations.

Precautions To Be Taken In Handling And Storing:
If handling in quantities, rubber gloves and face shield recommended.

Other Precautions:
None

Section 8 - Control Measures:

Respiratory Protection:	In confined spaces or other circumstances where adequate ventilation cannot be assured use NIOSH-approved respirator, positive pressure airline mask, or self contained breathing apparatus.			
Ventilation:	**Local Exhaust:**	N/A	**Special:**	N/A
	Mechanical:	Exhaust fan	**Other:**	N/A
Gloves:	Rubber gloves			
Eye Protection:	Safety goggles			
Other Protective Clothing:	Gloves while handling the material.			
Work/Hygienic Practices:	Wash thoroughly after handling.			