NATIONAL SOLDER CO
Material Safety Data Sheet

OSHA's Hazard Communication Standard

63/36.6/0.4 Tin/Lead/Antimony Alloys

Section I:

NATIONAL SOLDER CO Telephone 011-873 9000
13 ARKIN STR
INDUSTRIES EAST
GERMISTON
1400

Section II: Hazardous Ingredients/Identity information

Hazardous Component	CAS #	OSHA TWA	ACGIH TWA	Other limits
Tin	7440-31-5	2mg/M3	2mg/M3	NE
* + Lead	7439-92-1	0.05mg/M3	0.05mg/M3	NE
+ Antimony	7440-36-0	0.05mg/M3	0.05mg/M3	NE

% as specified

Only those ingredients listed in this section have been determined to be hazardous as defined in 29CFR 1910.1200. An ingredient marked with an asterisk (*) is also listed in 29CFR 1910.1200(D) #4 as a known or suspected cancer hazard.

+ denotes a chemical regulated as toxic by the Environmental Protection Agency (EPA) as outlined in 40CFR Part 372 (section 313)

Section III: Physical/Chemical Characteristics

Specific Gravity: 7.8
Vapour Pressure (mm Hg): 760 @ BP Melting Point: 184 C
Vapour Density: NE Evaporation Rate
Solubility in water: insoluble (butyl acetate=1): < 1
Appearance and odour: silver grey solid, odourless

Section IV: Fire and Explosion Hazard Data

Flash Point: non flammable Flammable limits lel: NA uel: NA
Extinguishing media: all
Special fire fighting procedures: use self-contained breathing apparatus
Unusual Fire and Explosion Hazards: May release toxic metal & oxide fumes. High concentrations of dust may present explosion hazard. Water trapped below molten metal may explode thus spattering molten metal.

Section V: Reactivity Data

Stability: STABLE Conditions to avoid: none
Incompatibility (materials to avoid): oxidizing materials, turpentine, acids, and chlorides.
Hazardous Decomposition or By-products (incomplete combustion): toxic lead & metal oxide fumes
Hazardous Polymerization: WILL NOT OCCOUR Conditions to avoid: any

Section VI: Health Hazard Data

Routes of entry: Inhalation? Yes Skin? No Ingestion? Yes

Health Hazards (acute and chronic): Contact with dust & fumes may cause skin, eye and respiratory irritation. Ingestion and/or inhalation of material or fumes may result in "metal fume fever", flu like symptoms, insomnia, muscle weakness, nausea and abdominal pain. Gross inhalation or ingestion may be toxic and can result in death. Symptoms of toxicity may take hours or days to manifest. Chronic exposures, inhalation or ingestion, may result in kidney, red blood cell, reproductive & nervous system effects. Health effects may be Cumulative over more exposure. Studies show that health risks vary by individual.
Minimize exposure as a precaution.

Carcinogenicity: not determined NTP? No IARC Monographs? Lead-suspect

Signs and symptoms of exposure: Inhalation-Nose & throat irritation, headache, dizziness, difficulty breathing, coughing, flu like symptoms, metallic taste in mouth. Ingestion- nausea, vomiting, cramps. Skin-redness, burning, rash. Eye-redness, tearing, blurred vision.

Medical Conditions Aggravated by exposure: Blood, kidney, reproductive &nervous system conditions

Emergency first aid procedures:
Skin: Flush with water immediately - Seek medical attention if burns are present.
Eyes: Flush with water for 15 minutes - Seek medical attention
Ingestion: Drink large amounts of water, induce vomiting if practical-seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation: Remove to fresh air. Support respiration if required - Seek medical attention.

Section VII: Precautions for Safe Handling and Use

Steps to be taken if material is released or spilled: Vacuum, absorb or flush in to a chemical sewer. Do not use any method which will generate dust.
Waste Disposal Method: dispose of in accordance with all local state regulations

Other Precautions: Avoid skin & eye contact, inhalation & ingestion of material or fumes.
  Wash thoroughly after use. Wash contaminated clothing before reuse. Avoid eating or smoking in lead use area. Keep away from children.

Section VIII: Control Measures

Respiratory Protection (type): Dust mask for particulates. Metal fume/HEPA respirator for fumes.
Ventilation Local Exhaust preferred Special: HEPA filters required
Mechanical: OK Other: NE
Protective Gloves: impervious Eye Protection: Goggles or face shield
Other Protective Clothing or Equipment: as required to avoid contact.
Work/Hygienic Practices: Wash after use. Follow good industrial hygienic practices.

Section IX: Additional Information

DOT Hazard Classification: Non-hazardous
NFPA Classification (NFPA 325M, 8th edition) (Health, Flammability, and Reactivity): 2-0-0

Delivery Information

International delivery regulation: LATA- Dangerous Goods Regulation Not Restricted.
UN code: Not Regulated
Domestic Delivery Regulation: None known
Special delivery method and precaution: None known

Law and Regulation

Conform to regulation; 1. SABS regulation.
2. Identification rules for hazardous and harmful materials.
3. Standards for waste disposal treatment and facility requirement.
4. Road traffic safety rules.

Additional Information

Reference: MSDS database, CCINFO CD 98-2, NIOSH/OSHA, Occupational Health Guidelines for Chemical Hazards, 1981.
Prepared by: Kirit Daya

OTHER: This product contains components known to the state of California to cause cancer or reproductive harm.

NE = not established NA = not applicable