

MATERIAL SAFETY DATA SHEET

Kapp Tin-Lead Solders for Electronics/Electrical

Trade Name: Kapp Tin Lead Solders for Electronics/Electrical Applications	Ref. Kapp ID No. 196 - 215
Composition: 5 – 95% Tin / 5 – 95% Lead	
Manufacturer: Kapp Alloy & Wire, Inc.	
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Please retain this sheet for your files. Kapp Alloy maintains a file of Material Safety Data Sheets (MSDS) for each alloy produced in compliance with Federal OSHA Hazard Communication Standard (29 CFR 1910.1200) & various right-to-know laws.

The information and recommendations contained within this publication have been compiled from sources believed to be reliable and to represent the best information available to Kapp Alloy and Wire, Inc. at the time of issue. It is our policy to include an MSDS with initial orders for each product. This submission is to become a matter of record and need not accompany subsequent shipments for the same product to the same customer. The information contained on this sheet is intended solely for employee health and safety education and not for contract specification purposes. No warranty, guarantee, or representation is made by Kapp Alloy and Wire, Inc., nor does Kapp Alloy and Wire, Inc. assume any responsibility in connection therewithin; nor can it be assumed that all acceptable safety measures or other safety measures may not be required under particular or exceptional conditions or circumstances. Should you need additional information, contact us.

I - MATERIAL IDENTIFICATION / COMPONENTS

*(Hazardous components 1% or greater; Carcinogens 0.1% or greater)

Component	CAS No.	OSHA PEL	ACGIH TLV	Density (lbs./ft ³)	% (optional)
Tin (Sn)	7440-31-5	2 mg/m ³	2 mg/m ³	.264	5 – 95%
Lead (Pb)	7439-92-1	.05 mg/m ³ (Dust&Fume)	.15 mg/m ³ (Dust&Fume)	.4094	5 – 95%

*The OSHA standard limit for occupational exposure to lead as referenced in CFR Title 29, Part 1910.1025 is 50 micrograms/cubic meter based on an eight hour time-weighted average.

This standard states that, when the air of work-rooms contains regularly not more than 50 micrograms of inorganic lead and its inorganic compounds per cubic meter of air, as measured by prescribed methods, cases of lead intoxication will not occur. No other hazardous material is present in concentrations greater than 1% (0.1% for Carcinogens)

II - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: NAIF	Eutectic Alloy 63Sn/37Pb Melting Point: 183°C / 361°F
Vapor Pressure (mm Hg.): LEAD ONLY: Health Significance ONLY >500°C	Vapor Density (AIR = 1): N/A
Specific Gravity: .3178	Solubility in Water: 0 (solid)
Evaporation Rate (Butyl Acetate = 1): N/A	
Appearance and Odor: Lustrous, silver metal; odorless / various shapes and sizes.	

III- FIRE AND EXPLOSION HAZARD DATA

Flash point & Methods Used:	Auto Ignition Temperature:	Flammability Limits (in air, % by volume):	LEL	UEL
N/A	N/A	N/A	N/A	N/A

Extinguisher Media: CO₂ or dry chemical extinguisher.
DO NOT USE WATER ON MOLTEN METAL.
Large fires may be flooded with water from a distance.

Special Fire Fighting Procedures: Use NIOSH/MSHA -approved self-contained breathing apparatus and full protective clothing if involved in fire.

Unusual Fire and Explosion Hazards: Finely Divided dust may form explosive mixture with air.
NEVER DROP WATER OR LIQUIDS INTO MOLTEN SOLDER.
Do not plunge damp or wet solder bars/pieces into molten solder.

X. OPTIONAL INFORMATIONDEPARTMENT OF TRANSPORTATION:

Proper shipping name:	Solder wire - NOT REGULATED
Hazard Class:	NAIF
ID & Packing Group Number:	NAIF
ERG Guide Number:	NAIF

TOXIC SUBSTANCE CONTROL ACT:

<u>SARA Title III Program:</u>	<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
This product contains the following toxic chemicals subject to the reporting requirements of EPCRA of 1986 and 40 CFR 372	Lead	7439-92-1	5 – 95%

***This information must be included in all MSDS that are copied and distributed for this material.**

**GOOD HOUSEKEEPING PROCEDURES SHOULD BE MAINTAINED.
PERSONNEL SHOULD WASH THOROUGHLY BEFORE SMOKING OR EATING
FOOD AND DRINK SHOULD NOT BE CONSUMED OR TOBACCO PRODUCTS USED.
NOR COSMETICS APPLIED IN AREAS WHERE EXPOSURES EXIST.**

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