

SAFETY DATA SHEET

Alloys Containing Tin/Lead/Zinc

1. PRODUCT IDENTIFICATION

Alloys containing Tin/Lead/Zinc

Tin/Lead/Zinc Alloys

Section 02

Constituents

Chem	CAS %WT (approx.)	Carcinogen	TLVACGIH	OSHA PEL
Tin	7440-31-5 20-30	No	2mg/cu m	2 mg/cu m
Lead	7439-92-1 60-80	Yes	0.05 mg/cu m	0.05 mg/cu m
Zinc	7440-66-6 5-10	No	Not Listed	Not Listed

This product contains a chemical subject to SECTION 313 of SARA Title III. IARC classifies lead and some lead compounds as Group 2B carcinogens (possibly carcinogenic to humans).

This classification based primarily on carcinogenicity of certain soluble lead salts in lab animals.

Neither lead nor its insoluble salts appear to be carcinogenic to humans or lab animals.

Section 03

Physical Data

Melting Point	175°C - 260°C
Boiling Point	N/A
Vapour Pressure	Not volatile
Vapour Density (air is 1)	Not volatile
Solubility in Water	Nil
Appearance & Colour	Silver to grey metal
Density	9.4 g/cm ³
Odor	None
% Volatile	Nil
pH	N/A
Evaporation Rate (nBuAc=1)	N/A

Section 04**Fire & Explosion Hazard Data**

Flash Point/Method Used	N/A
Flammable Limits	N/A
Extinguishing Media	N/A
Fire-fighting equipment	Wear self-contained breathing apparatus if product is involved in a fire.
Special Precautions	When heated to high temperatures, lead emits toxic fumes.

Section 05**Reactivity Data**

Stability:	Stable
Conditions to avoid:	None
Hazardous Polymerization:	Will not occur
Conditions to avoid:	None
Incompatibility:	Strong acids, oxidizers, halogens
Hazardous Decomposition Products:	Lead fumes at high temperatures (above 800o F)

Section 06**Spill, Leak and Disposal Procedures**

Action to take for Spills/Leaks:	Allow to solidify and collect in sealed drums for disposal.
Disposal Method:	Return to supply for reprocessing.

Section 07**Health Hazard Data**

Eye:	Dust or fume will be irritant.
Skin Contact:	Not a route of entry into the body.
Skin Absorption:	Not a route of entry into the body.
Ingestion:	Ingestion of dust or fume must be avoided. Lead is toxic and cumulative, affecting the kidneys and nervous system. Symptoms include anemia, insomnia, weakness, irritability, constipation and stomach pains. Tin is not regarded as toxic but excessive exposure can cause fever, nausea, stomach cramps or diarrhea.
Inhalation:	Inhalation of dust and fumes must be avoided. Irritation of nose and bronchial tracts may occur as well as effects due to absorption of lead, etc. in the blood stream. Inhalation of zinc fume (as code) may cause dry throat, cough, generated ache, nausea, vomiting.
Systemic & Other Effects:	UNK

Section 08**First Aid Procedures**

Eyes:	Flush with water for 15 minutes.
Skin:	Wash thoroughly with soap and water. Remove contaminated clothing.
Ingestion:	Get medical attention immediately.
Inhalation:	Remove to fresh air. Get medical attention.

Section 09**Special Handling Information****Ventilation:**

If fume or dust is being generated, mechanical ventilation must be provided to maintain exposure levels below TLV's.

Respiratory Protection:

Only required if TLV's are exceeded. Use a NIOSH/OSHA approved respirator for toxic dust and/or fume. Note: See 29CFR1910.1025 Subpart (f) of OSHA's Lead Standard.

Eye Protection:

Wear safety glasses during soldering operations.

Skin Protection:

Not normally needed.

Section 10**Special Precautions & Additional Information****Storage:**

Store in dry conditions. Avoid storage near acetylene, chlorine or hydrogen peroxide.

Handling Information:

Lead use is regulated under OSHA 29CFR 1910.1025. No food or drink should be allowed in areas where these products are handled. Personnel must wash thoroughly after handling the metal before drinking, eating or smoking.

Labeling:

Lead warning labels (if applicable). Keep out of reach of children. For Industrial Use Only. Do Not Take Internally.

Shipping Information:

This material is not regulated by 49 CFR (Code of Federal Regulations, Transportation) while in a solid bar form. However, if in small particle form less than .004 inches in diameter certain alloys by weight (lead > 1lb.; zinc > 1,000 lbs.) are regulated as: RQ, Environmentally Hazardous Substance, N.O.S. (Insert metal), 9, UN3077, PG III

Section 11**Hazard Rating**

Based on NFPA and NPCA Systems

Health - 2

Flammability - 0

Reactivity - 0

Special Hazard - W

The information contained herein is based on data considered accurate and is offered at no charge. The above data is typical of the product in general but batches may show variations. No warranty is expressed or implied regarding the accuracy of this data.

Liability is expressly disclaimed for loss or injury arising out of the use of this information or the use of any materials designated.

In countries other than the UK, there may be different Exposure Limits, please check with your National Authorities.

NE = not established NA = not applicable