

The Platt Bros. & Co.
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PBC-2M
 DATE: February 20, 1987
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MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Zinc/Aluminum base alloys in wire, rod, bar, strip, coil, tube and scrap

CHEMICAL FAMILY: Zinc/Aluminum Alloy

USE OF PRODUCT: Article Fabrication

Product includes the following grade Zinc/Aluminum Alloys 300, 1311, 1312, 1313, 1314, 1315

SECTION I - CHEMICAL COMPOSITION

Alloy may contain any or all of the chemical constituents listed below:

	<u>CAS. NO</u>	<u>RANGE (%)</u>	<u>TLV (mg/m³)</u>	
Zinc	7440-66-6	80 - 99	1.0	As Fume
Aluminum	7429-90-5	0 - 16.5	10.0	As Dust or Oxide
Cadmium	7440-43-9	0 - 0.005	0.05	As Dust or Fume
Copper	7440-50-8	0 - 0.75	0.2	As Fume
Iron	7439-89-6	0 - 0.75	5.0	As Fume
Lead	7439-92-1	0 - 0.007	0.05	As Dust or Fume
Titanium	7440-32-6	0 - 0.002	10.0	As Dioxide

SECTION II - PHYSICAL DATA

Melting Point: 710-1200°F
 Boiling Point: N.A.

Specific Gravity: (H₂O = 1) 2.5 - 8.5
 Vapor Pressure: N. A.

The product is a bluish white to silvery solid at room temperature, and exhibits no odor. Negligible solubility in water.

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SECTION III - STORAGE, FIRE & REACTIVITY

Flash Point: N.A.

Auto Ignition: N.A.

Flammability Limits: N.A.

There is no unusual fire and explosion hazard with these alloys. Never use water as an extinguishing agent around molten metal. Water will react violently with any molten metal. Use self-contained breathing apparatus for protection against degradation products and fire fighting techniques or agents applicable to surrounding materials. Small chips, fine turnings and dust may ignite readily. Do not use halogenated extinguishing agents on small chips or fines. Dust clouds may be explosive.

This alloy is stable, non-hazardous solid at room temperature.

Material may react with strong acids or alkaline materials.

Material does not present a significant health hazard under normal handling and storage.

SECTION IV - HEALTH HAZARD DATA

Under normal handling conditions the solid alloy presents no significant health hazards. Processing of the alloy by dust or fume producing operations (grinding, buffing, sawing, forging, cutting, welding, etc.) may result in the potential for exposure to airborne metal particulates or fume. The exposure levels in SECTION I are relevant to fumes or dusts.

EFFECTS OF OVEREXPOSURE

Acute exposure to Zinc/Aluminum dust or fume may cause irritation to the eyes, nose or throat; leave a metallic taste in the mouth; result in metal fume fever; or produce flu-like symptoms.

Aluminum: May initiate fibrotic changes to lung tissue.

Cadmium: Loss of smell, ulceration of the nose, shortness of breath, (emphysema), kidney damage, and mild anemia, also reported to cause an increased incidence of cancer of the prostate in men.

Copper: No chronic debilitating symptoms indicated.

Iron: Siderosis

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Lead: Anemia, urinary dysfunction, metallic taste in mouth, weakness, constipation, nausea, nervous disorder.

Zinc: Chromosomal anomalies in leukocytes reported. Arthritic, lameness and inflammation of the gastrointestinal tract reported from animal studies.

Titanium No chronic debilitating symptoms indicated.

SECTION V – FIRST AID

Ingestion: Ingestion of significant amounts of Zinc alloy are unlikely. Seek medical help if large quantities of product are ingested.

Inhalation: Remove from exposure to dust or fume if present. Seek medical help if required.

Skin Contact: Flush thoroughly with water.

Eye Contact: Flush with water for at least 15 minutes. Seek medical help if required.

SECTION VI – SPILL PROCEDURES

Product is a non-hazardous solid. No special precautions are required for spills of bulk material. Scrap metal can be reclaimed for reuse. Follow Federal, State and local regulations regarding disposal.

SECTION VII – SPECIAL PROTECTION INFORMATION

Typically no special protection is required during use of the product beyond that required for the process operation being employed. Where dust or fume levels are greater than those specified in SECTION I, NIOSH approved respiratory protection should be used. Use local exhaust ventilation for dust/fume. Use approved goggles for eye protection.

SECTION VIII – SPECIAL PRECAUTIONS AND COMMENTS

Wet material should never be charged into a molten bath.
Eye protection should be used when cutting, grinding, machining or buffing product.
Eye protection should also be used with any other process that generates dust, fumes or chips. Dark glasses should be worn when metallizing.

Wash hands thoroughly after use, especially before eating.

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SECTION IX - ENVIRONMENTAL/SAFETY REGULATIONS

SECTION 313 (Title III Superfund Amendment and Reauthorization Act of 1986 and 40CFR Part 372).

This product contains the following chemical(s) subject to the reporting requirements of SECTION 313. Zinc (Fume or Dust), CAS Number 7440-66-6, 98% by weight, Aluminum (Metal Dust), CAS Number 7429-90-5, 15% by weight.

The information in this Material Safety Data Sheet was obtained from sources which we believe are reliable. However, the information is provided without any representation or warranty, expressed or implied regarding the accuracy or correctness.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

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