

SECTION 1. IDENTIFICATION

Product/Trade Name: HP88 - Tin/Lead/Cadmium/Antimony
NAFTA H.S. description 8001.20

Info furnished by: Hallmark Metals Corporation
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Cranston, RI 02910
Emergency Phone: 888-467-8000

SECTION 2. HAZARDS IDENTIFICATION

Primary routes of entry: ingestion of dust, inhalation of dust or fume.

Exposure to the massive form of tin presents few hazards in itself. However, normal handling of tin may result in generation of dusts. And inhalation or ingestion of these dusts may present potentially significant health hazards. Thermal cutting and melting of tin may produce fumes containing the components elements, and breathing these fumes may also present potentially significant health hazards. Special precautions should be taken if metal is contaminated.

TIN: Prolonged inhalation of tin fumes or dusts, or ingestion of tin compounds can result in tin poisoning. Symptoms include abdominal pain or colic, constipation, nausea, joint and muscle pains, and muscular weakness. Severe cases of overexposure may lead to central nervous systems disorders, characterized by somnolence, stupor, and ultimately death.

LEAD: is harmful if swallowed. May cause irritation. Avoid breathing vapors or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

CADMIUM is hazardous in case of ingestion or inhalation. It is slightly hazardous in case of skin contact or eye contact. Severe over-exposure can result in death.

Carcinogenic effects: Classified A2 (suspected for human) by ACGIH, 2 (reasonably anticipated) by NTP.

The substance is toxic to kidneys, lungs, and liver. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

ANTIMONY: Overexposure to Antimony may cause gastrointestinal upset and various Nervous complaints, such as sleeplessness, irritability, and muscular pain.
Antimony, Lead, Cadmium have been identified as potential cancer-causing agents.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Element	CAS	% WT	Carcinogen	TLV/TWA	OSHA PEL
*Tin	7440-31-5	86-90	No	2.0 mg/cu m	2.0 mg/cu m
*Lead	7439-92-1	7-11	Yes (IARC 2B) †	0.05 mg/cu m	0.05 mg/cu m
*Cadmium	7440-43-9	1-4	Yes(IARC 1) ◇	0.002 mg/cu	0.005 mg/cu m
*Antimony	7440-36-0	1-4	No	0.5 mg/cu m	0.5 mg/cu m

*Product contains one or more of these metallic elements in varying percentages by weight.

◇Group 1 The agent (mixture) is carcinogenic to humans. The exposure circumstance entails exposures that are carcinogenic to humans.

†Group 2B The agent (mixture) is possibly carcinogenic to humans. The exposure circumstance entails exposures that are possibly carcinogenic to humans.

SECTION 4. FIRST AID MEASURES

Generally not hazardous in normal handling. However, good laboratory practices should always be used. Avoid long term exposure to skin or by inhalation.

FIRST AID: SKIN: Wash exposed area with soap and water. If irritation persists, seek medical attention.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but it is not necessary to induce.

SECTION 5. FIRE - FIGHTING MEASURES

Fire Extinguisher Type: Use special mixtures of dry chemicals.

Fire/Explosion Hazards: Solid, massive form of material is not combustible under ordinary fire conditions. fire and explosion hazards are moderate when material is in the form of dust and exposed to heat or flames, chemical reaction, or contact with powerful oxidizers.

Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

No special precautions are necessary for spills of bulk material. If large quantities of dust are spilled, remove by vacuuming or wet sweeping to prevent heavy concentrations of airborne dust. Clean-up personnel should wear respirators and protective clothing.

Metal can be reclaimed for refuse. Follow federal, state, and local regulations regarding disposal.

SECTION 7. HANDLING AND STORAGE

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep container tightly closed in a dry and well-ventilated place. Air and moisture sensitive. Handle and store under inert gas. Keep in dry place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Use general and local exhaust ventilation to keep airborne concentrations of dust or fume below the TLV. Employees should wear OSAH or NIOSH approved respirators for protection against airborne dust or fumes. Full protective clothing should be worn by workers exposed to heavy concentrations of dust, and showering should be required before changing into street clothes. Gloves and barrier creams may be necessary to prevent skin sensitization and dermatitis.

Approved safety glasses or goggles should be worn when working with dusty material and molten metal. Safety stations should be provided in close proximity to work areas.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Melting point	360 - 620° F depending on composition
Boiling point	N/A
Vapor pressure	Not volatile
Vapor density	Not volatile
Solubility in water	Nil
Appearance & color	Silver to gray metal
Specific gravity g/cc	7.6318
% Volatile	Nil

pH

N/A

SECTION 10. STABILITY AND REACTIVITY

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: no data available

Conditions to avoid:no data available

Materials to avoid: Strong oxidizing agents, Sulphur compounds, Strong bases, Halogens, Do not store near acids.

Hazardous decomposition products: Hazardous decomposition products formed under fire conditions. - Tin/tin oxides

Other decomposition products – no data available

SECTION 11. TOXICOLOGICAL INFORMATION

Inhalation – May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion – May be harmful if swallowed

Skin – May be harmful if absorbed through skin. Causes skin irritation.

Eyes – Causes eye irritation.

LEAD CONCENTRATION RESPIRATORY PROTECTION Up to 0.5 mg/m³ : Any Air-Purifying Respirator with a high-efficiency particulate filter, or any Supplied-Air Respirator (SAR). Up to 1.25 mg/m³ : Any SAR operated in a continuous-flow mode, or any powered, air-purifying respirator with a high-efficiency particulate filter. Up to 2.5 mg/m³ : Any Air-Purifying, Full-Facepiece Respirator with a high-efficiency particulate filter, or any SAR that has a tight-fitting facepiece and is operated in a continuous-flow mode, or any powered, air purifying respirator with a tight-fitting face piece and a high-efficiency particulate filter, or any Self-contained Breathing Apparatus (SCBA) with a full face piece, or any SAR with a full face piece. Up to 50 mg/m³ : Any SAR operated in a pressure-demand or other positive-pressure mode. Up to 100 mg/m³ : Any SAR that has a full face piece and is operated in a pressure-demand or other positive pressure mode.

SECTION 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ENVIRONMENTAL STABILITY: Components of these products will react with water and air to form a variety of stable metal oxides.

EFFECT OF MATERIAL ON PLANTS or ANIMALS: Due to the Lead component, adverse effect may occur to animals which come into contact with these products. No data is available on the components of these products and plants.

EFFECT OF CHEMICAL ON AQUATIC LIFE: Due to the Lead component of these products, a release of product to an aquatic environment may have a significant adverse effect.

SECTION 13. DISPOSAL CONSIDERATIONS

Metal can be claimed for refuse. Follow Federal, State, and local regulations regarding disposal.

SECTION 14. TRANSPORT INFORMATION

No data available

SECTION 15. REGULATORY INFORMATION

Lead is designated as a hazardous substance under Section 311(b)(2)(A) of the Federal Water Pollution Control Act and further regulated by the Clean Water Act Amendments of 1977 and 1978. These regulations apply to discharges of Lead. OSHA: Employers are required to follow the exposure limits and other requirements as defined under the Lead Standard, 29 CFR 1910.1025.

May be harmful if absorbed through skin Change to Skin absorption is not known to be a significant route of over-exposure for any element of this product

SECTION 16. OTHER INFORMATION

This fact sheet was prepared by Hallmark Metals Corporation. The information recommendations and suggestions were compiled from reference materials and other sources believed to be reliable. However, the fact sheets' accuracy or completeness is not guaranteed by Hallmark Metals Corporation, nor is any responsibility assumed or implied for any loss or damage resulting from inaccuracies or omissions. Appropriate warnings and safe handling procedures should be provided to handlers and users. No warranty is implied or expressed regarding the accuracy of this data. Liability is expressly disclaimed for loss or injury arising out of use of this information or the use of any materials designated.

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