SECTION 1. IDENTIFICATION

Product/Trade Name: **Solder 30/70**
NAFTA H.S. description 8001.20

Info furnished by: Hallmark Metals Corporation
Address: 930 Wellington Avenue
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.

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.

Exposure to the massive form of lead presents few hazards in itself. However, normal handling of lead may result in generation of dusts containing the component elements, and inhalation or ingestion of these dusts may present potentially significant health hazards. Thermal cutting and melting of lead may produce fumes containing the components elements, and breathing these fumes may also present potentially significant health hazards.

Prolonged inhalation of lead fumes or dusts, or ingestion of lead compounds can result in lead 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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Element	CAS	%WT	Carcinogen	TLV/TWA	OSHA PEL
*Tin	7440-31-5	30	No	2.0 mg/cu m	2.0 mg/cu m
*Lead	7439-92-1	70	Yes (IARC 2B)	0.05 mg/cu m	0.05 mg/cu m

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

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: Special powder or dry sand. Do not use water!
Fire/Explosion Hazards: Dust at sufficient concentrations can form explosive mixtures with air.
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 personal 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 (air is 1)	**Not Volatile**
Solubility in water	**NIL**
Appearance & Color	**Silver to gray metal**
Specific gravity g/cc	**7-11 approx. depending on composition**
Odor	**None**
% Volatile	**Nil**
pH	**N/A**
Evaporation	**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

BASES ON NFPA AND NPCA SYSTEMS

HEALTH -2
FLAMMABILITY - 0
REACTIVITY – 0

California State Proposition 65:
WARNING! This product contains Lead and Cadmium known to the state of California to cause cancer, birth defects, or other reproductive harm.

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

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