

TIN LEAD SOLDER ALLOYS

Safety Data Sheet

1. Product and Company Identification

Manufacturer

Lucas-Milhaupt, Inc.
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Warwick, RI 02886 USA
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www.lucasmilhaupt.com

Emergency Phone Number

Chemtrec: 800-424-9300

Product Code: SN-PB

Product(s): 35317 (95/5), 35543 (35/65), 30494 (40/60), 35445 (45/55), 30486 (50/50), 30833 (60/40), 35537 (63/37)

ProductUse(s): Alloys for soldering and other metallurgical processes

2. Hazards Identification

Classifications(s)

Specific Target Organ Toxicity, Repeated Exposure:

Hazard Category 1

Toxic to Reproduction: Hazard Category 1A

Label Symbol(s): Health Hazard

Label Signal Word(s): Danger

Label Hazard Statement(s)

May cause damage to the nervous system, gastrointestinal system, blood-forming organs, and male reproductive system by inhalation or ingestion. May damage fertility or the unborn child.

Label Precautionary Statement(s)

Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Store locked up.
Do not breathe dust or fume.
Wear protective gloves and eye/face protection.
Wash hands thoroughly after handling.
Do not eat, drink, or smoke when using this product.
If exposed or concerned or if you feel unwell, get medical advice/attention.
Dispose of contents and container in accordance with applicable regulations.
The acute toxicities of 100% of the product's ingredients are unknown.

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.



3. Composition/Information on Ingredients

| Ingredient | CAS Number | % | Impurities |
|------------|------------|------|------------|
| Lead | 7439-92-1 | 5-95 | None known |
| Tin | 7440-31-5 | 5-95 | None known |

4. First Aid Measures

Eye

Flush affected areas with water for at least fifteen minutes. Seek medical assistance if necessary.

Skin

Remove contaminated clothing. Wash affected area with large quantities of water for at least five minutes. Seek medical attention if necessary. Launder or dry-clean clothing before reuse.

Ingestion

If subject is conscious, induce vomiting. If unconscious or convulsive, seek immediate medical assistance. Do not give anything by mouth to an unconscious or convulsive person.

Inhalation

If signs and symptoms of toxicity are observed, remove subject from area, administer oxygen, and seek medical attention. Keep the subject warm and at rest. Perform artificial respiration if breathing has stopped.

Note to Physician or Poison Control Center

None of the components are acutely toxic by ingestion, nor are they absorbed through the skin.

5. Fire Fighting Measures

Fire and Explosion Hazards

This product is non-flammable and non-explosive. If present in a fire or explosion, it may emit fumes of the constituent metals or their oxides.

Extinguishing Media

Use dry chemical. Do not use water.

Fire Fighting Instructions

If fighting a fire in which this product is present, wear a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode.

6. Accidental Release Measures

Methods and Materials

If a finely-divided form of product is spilled, clean up spillage so as to minimize dispersion of dust. Either wet sweeping or vacuuming using HEPA filtration is recommended.

Personal Precautions

Avoid contact with skin, eyes, and mucous membranes.

Environmental Precautions

Prevent spills from entering sewers or contaminating soil.

7. Handling and Storage

Handling Precautions

No special handling precautions are required.

Work and Hygiene Practices

To prevent ingestion following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing or protective equipment before entering eating/drinking areas.

Storage Precautions

Do not store in proximity to incompatible materials (see Section #10).

8. Exposure Controls and Personal Protection

Ingredients - Exposure Limits

Lead

ACGIH TLV: 0.05 mg/m³ TWA

OSHA PEL: 50 micrograms/m³ TWA

Tin

ACGIH TLV: 2 mg/m³ TWA

OSHA PEL: 2 mg/m³ TWA

Ingredients - Biological Limits

Lead

ACGIH BEI: 30 micrograms/dl whole blood

Tin

No ACGIH BEI(s) or other biological limits

Engineering Controls

Use dilution or local exhaust ventilation adequate to maintain concentrations of all components and their byproducts to within their applicable standards.

Eye/Face Protection

Wear eye protection adequate to prevent eye contact with the product and injury if the products are used with a flame. Plastic-frame spectacles with side shields and filter lenses (shade #3/#4) are recommended.

Skin Protection

Wear protective gloves and clothing to prevent skin injuries if the products are used with a flame and/or for prolonged or repeated contact with finely-divided forms of product. Avoid flammable fabrics.

Respiratory Protection

If an exposure level to a component(s) exceeds an applicable standard, use a NIOSH-approved respirator having a configuration (facepiece, filter media, assigned protection factor, etc.) effective for the concentration of the component(s) generated. For guidance on selection and use of respirators, consult American National Standard Z88.2 (ANSI, New York, NY 10036, USA).

9. Physical and Chemical Properties

Appearance: gray-white metals, various forms
Odor: none
Odor threshold: not applicable
pH: not applicable
Melting Point: 350-600F./175-315C.
Freezing point: not applicable
Boiling point/boiling range: not determined
Flash Point: not applicable
Evaporation Rate: not applicable
Flammability Class: not applicable
Lower Explosive Limit: not applicable
Upper Explosive Limit: not applicable
Vapor pressure: not applicable
Vapor density: not applicable
Relative density (H2O): not determined
Solubility (H2O): insoluble
Oil-water partition coefficient: not applicable
Autoignition Point: not applicable
Decomposition temperature: not applicable
Viscosity: not applicable

10. Stability and Reactivity

Reactivity: none reasonably foreseeable
Stability: stable
Hazardous Polymerization: will not occur
Risk of Dangerous Reactions: none reasonably foreseeable

Incompatible Materials

Ammonium nitrate; chlorine trifluoride; peroxides; azides; carbides; zirconium; halogens; bromine trifluoride; cupric nitrate; sulfur; nitrates; permanganates; bromoazide; carbon monoxide.

Hazardous Decomposition Products

Heating to elevated temperatures may liberate metal/metal oxide fumes.

11. Toxicological Information

This product has not been tested for toxicology by the manufacturer.

Ingredient(s) - Toxicological Data

Lead

LD50: No data available

LC50: No data available

Tin

LD50: No data available

LC50: No data available

Primary Routes(s) of Entry

Ingestion; inhalation.

Eye Hazards

Eye contact with these products in finely-divided forms may cause irritation and/or conjunctivitis.

Skin Hazards

Skin contact with these products in finely-divided forms may cause irritation and/or contact dermatitis.

Ingestion Hazards

Ingestion of this product in finely-divided forms may cause nausea, vomiting, and gastrointestinal irritation.

Inhalation Hazards

Inhalation of toxicologically-significant quantities of the components is unlikely when the product is used in accordance with instructions and specified protective measures (see Section #8). Inhalation of tin fume may cause stannosis (a benign pneumoconiosis), shortness of breath, and respiratory irritation.

Symptoms Related to Overexposure

Pre-existing pulmonary diseases (e.g., bronchitis, asthma) may be aggravated by inhalation overexposure, particularly as fume.

Delayed Effects from Long Term Overexposure

Chronic overexposure by inhalation and/or ingestion may aggravate pre-existing diseases of the liver, kidneys, gastrointestinal system, nervous system, blood-forming organs, and male reproductive system.

Carcinogenicity

Lead (CASRN 7439-92-1) is listed in the IARC Monographs.

Germ Cell Mutagenicity

The product contains no chemicals determined to be germ cell mutagens.

Reproductive Effects

Lead is readily transported across the human placental membrane, and can induce fetotoxic effects such as reduced periods of gestation and impaired neurological development in offspring.

Acute Toxicity Estimates

LD50 (oral): No data available
LD50 (dermal): No data available
LC50: No data available
Interactive Effects of Components: no data available

12. Ecological Information

No ecological data is available for the product or its components.

Ozone Depletion Potential: This product contains no ingredients listed in the Annexes to the Montreal Protocol on Substances that Deplete the Ozone Layer.

13. Disposal Considerations

Do not discharge waste product into sanitary or storm sewers or allow it to contaminate soil. Consult applicable Federal, State/ Provincial, and local regulations.

14. Transport Information

Transport is not regulated by USDOT, TDG (Canada), IATA, or IMO.

15. Regulatory Information

United States Regulatory Information

TSCA Information

All components of these products are listed in the EPA's TSCA inventory.

SARA Hazard Classes

Acute Health Hazard; Chronic Health Hazard

SARA Section 313 Notification

These products contain these ingredients in concentrations >1% (>0.1% for carcinogens regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372.

Lead (CASRN 7439-92-1)

Ingredient(s) - State Regulations

Lead (CASRN 7439-92-1): California Proposition listed chemical

Canadian Regulatory Information

All components of these products are listed on either the Domestic Substances List (DSL) or the Nondomestic Substances List (NDSL).

WHMIS Class(es) and Division(s): D2A, D2B

Component(s) on Ingredients Disclosure List:

1. Lead, elemental (CASRN 7439-92-1)
2. Tin, elemental (CASRN 7440-31-5)

This product has been classified according to the hazard criteria of the CPR and this SDS contains all of the information required by the CPR.

16. Other Information

----- HMIS Ratings (Legend) -----

Health - 2* (moderate chronic hazard)
Flammability - 0 (minimal hazard)
Physical Hazard - 0 (minimal hazard)
PPE - see Note

Note: Lucas-Milhaupt Warwick, LLC recommends use of protective eyewear and gloves (Personal Protection Index "B") as standard PPE. HMIS recommends that its ratings be used only in conjunction with a fully implemented HMIS program, and that specific PPE codes be created by the user, who is familiar with the actual conditions under which the product is used. We cannot anticipate every condition of the product's use, and it is the user's responsibility to evaluate the hazards pertinent to its specific operations, and to determine the specific PPE required.

NFPA Ratings -----

Health - 2 Flammability - 0 Reactivity - 0

Preparation Information -----

Date of Preparation: 12 December 2014
Date of Prior SDS: 1 January 2013

Disclaimer -----

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Lucas-Milhaupt, Inc.