

Silver-Tin Brazing Alloys

Safety Data Sheet

1. Product and Company Identification

Manufacturer

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Emergency Phone Number

Chemtrec: 800-424-9300

Product Code: AG-SN

Product(s): 28639 (SILVABRITE), 28647 (SILVABRITE S), 35709 (Silvabrite 6)

Product Use(s): Alloys for brazing and other metallurgical processes

2. Hazards Identification

Classification(s): None applicable

Label Symbol(s): None applicable

Label Signal Word(s): None applicable

Label Hazard Statement(s): None applicable

Label Precautionary Statement(s)

The acute toxicities of 94-96% of the products' ingredients are unknown.

3. Composition/Information on Ingredients

Ingredient	CAS Number	%	Impurities
Silver	7440-22-4	4-6	None known
Tin	7440-31-5	94-96	None known

4. First Aid Measures

Eye

Not applicable.

Skin

Not applicable.

Ingestion

Not applicable.

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

These products are non-flammable and non-explosive. If present in a fire or explosion, they 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 these products are present, wear a self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode.

6. Accidental Release Measures

Not applicable.

7. Handling and Storage

Handling Precautions

No special handling precautions are required.

Work and Hygiene Practices

As good hygiene practice, 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

Silver

ACGIH TLV: 0.1 mg/m3 TWA (metal)

OSHA PEL: 0.01 mg/m3 TWA

Tin

ACGIH TLV: 2 mg/m3 TWA

OSHA PEL: 2 mg/m3 TWA

Ingredients - Biological Limits

Silver

No ACGIH BEI(s) or other biological limit(s)

Tin

No ACGIH BEI(s) or other biological limit(s)

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 injury if the products are used with a flame. Plastic-frame spectacles with side shields are recommended.

Skin Protection

Wear protective gloves and clothing to prevent skin injuries if the products are used with a flame. 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: White metals in solid forms

Odor: none

Odor threshold: not applicable

pH: not applicable

Melting Point: >432F./222C.

Freezing point: not applicable

Boiling point/boiling range: not determined

Flash Point: not applicable

Evaporation Rate: not applicable

Flammability Class: not applicable

Lower/Upper Explosive Limits: not applicable

Vapor pressure: not applicable

Vapor density: not applicable

Relative density (H₂O): approx. 7.4

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: silver can form an unstable acetylide in contact with acetylene gas.

Incompatible Materials

Acetylene; ammonia; nitric acid; ethylene imine; sulfuric acid; chlorine trifluoride; peroxides; permonosulfuric acid; peroxyformic acid; oxalic acid; tartaric acid; bromoazide; halogens; bromine trifluoride; cupric nitrate; sulfur.

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.

Ingredients - Toxicological Data

Silver

LD50: >2,000 mg/kg (oral/rat) LC50: No data available

Tin

LD50: No data available LC50: No data available

Primary Routes(s) of Entry

Inhalation.

Eye Hazards

As a solid, eye contact is not a plausible mode of exposure.

Skin Hazards

As a solid, skin contact is not a plausible mode of exposure.

Ingestion Hazards

As a solid, ingestion is not a plausible mode of exposure.

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).

Symptoms Related to Overexposure

Pre-existing pulmonary diseases (e.g., bronchitis, asthma) may be aggravated by inhalation overexposure, particularly as fume. Overexposure to tin fume may cause stannosis (a benign pneumoconiosis), shortness of breath, and respiratory irritation.

Delayed Effects from Long Term Overexposure

Chronic overexposure may aggravate pre-existing diseases of the respiratory system.

Carcinogenicity

The product contains no chemicals classified as potential or demonstrated carcinogens by IARC, NTP, or OSHA.

Germ Cell Mutagenicity

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

Reproductive Effects

The product contains no chemicals determined to be damaging to fertility or to the unborn child.

Acute Toxicity Estimates

LD50 (oral): >2,000 mg/kg
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 Annex to the Montréal Protocol on Substances that Deplete the Ozone Layer.

13. Disposal Considerations

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

All components of this product are listed on the EPA's TSCA inventory.

SARA Hazard Classes: Acute Health Hazard; Chronic Health Hazard

SARA Section 313 Notification

These products contain these components in concentrations >1% (>0.1% for carcinogens) subject to Section 313 of the Emergency Preparedness and Community Right-to-Know Act (EPCRA) of 1986 and of 40CFR, Part 372:

1. Silver (CASRN 7440-22-4)

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): D2B

Components on Ingredients Disclosure List:

1. Silver, elemental (CASRN 7440-22-4)
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 - 1* (slight chronic hazard)
Flammability - 1 (slight 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 - 1 Flammability - 1 Reactivity - 0

Preparation Information -----

Date of Preparation: 7 January 2015
Date of Prior SDS: 1 January 2013

Disclaimer -----

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Lucas-Milhaupt, Inc.