

## SECTION 1: Identification

### 1.1. Identification

Product form : Mixture  
Trade name : SILVABRITE 100®  
Product code : A00000090

### 1.2. Recommended use and restrictions on use

Recommended use : Alloys for brazing/soldering and other metallurgical processes

### 1.3. Supplier

Lucas-Milhaupt, Inc.  
5656 South Pennsylvania Ave.  
Cudahy, WI 53110 - USA  
T (414)-769-6000  
[LM\\_SDSinfo@lucasmilhaupt.com](mailto:LM_SDSinfo@lucasmilhaupt.com) - [www.Lucasmilhaupt.com](http://www.Lucasmilhaupt.com)

### 1.4. Emergency telephone number

Emergency number : CHEMTREC within the USA and Canada: 1-800-424-9300  
CHEMTREC outside the USA and Canada +1 701-741-5970

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS-US classification

Respiratory sensitisation, H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Category 1B

Full text of H statements : see section 16

### 2.2. GHS Label elements, including precautionary statements

#### GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger  
Hazard statements (GHS-US) : H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Precautionary statements (GHS-US) : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
P284 - [In case of inadequate ventilation] wear respiratory protection.  
P304+P341 - If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing  
P342+P311 - If experiencing respiratory symptoms: Call a poison center/doctor  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name   | Product identifier  | %             |
|--------|---------------------|---------------|
| Tin    | (CAS-No.) 7440-31-5 | 93.63 - 97.63 |
| Copper | (CAS-No.) 7440-50-8 | 3.5 - 4.5     |
| Silver | (CAS-No.) 7440-22-4 | 0.3 - 0.45    |

# SILVABRITE 100®

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Call a poison center or a doctor if you feel unwell.  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.  
First-aid measures after skin contact : Wash skin with plenty of water.  
First-aid measures after eye contact : Rinse eyes with water as a precaution.  
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell. Rinse mouth.

#### 4.2. Most important symptoms and effects (acute and delayed)

No additional information available

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Dry powder. Water spray. Foam.  
Unsuitable extinguishing media : Water.

#### 5.2. Specific hazards arising from the chemical

- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

#### 5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area.

##### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.  
Methods for cleaning up : Mechanically recover the product.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

| Silver (7440-22-4) |                                |                                       |
|--------------------|--------------------------------|---------------------------------------|
| ACGIH              | ACGIH TWA (mg/m <sup>3</sup> ) | 0.1 mg/m <sup>3</sup> (dust and fume) |

# SILVABRITE 100®

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| <b>Silver (7440-22-4)</b> |                                      |   |
|---------------------------|--------------------------------------|---|
| OSHA                      | OSHA PEL (TWA) (mg/m <sup>3</sup> )  | 0.01 mg/m <sup>3</sup>  |
| IDLH                      | US IDLH (mg/m <sup>3</sup> )         | 10 mg/m <sup>3</sup> (dust)   |
| NIOSH                     | NIOSH REL (TWA) (mg/m <sup>3</sup> ) | 0.01 mg/m <sup>3</sup> (dust)                                       |
| <b>Copper (7440-50-8)</b> |                                      |   |
| ACGIH                     | ACGIH TWA (mg/m <sup>3</sup> )       | 0.2 mg/m <sup>3</sup> (fume)  |
| OSHA                      | OSHA PEL (TWA) (mg/m <sup>3</sup> )  | 0.1 mg/m <sup>3</sup> (fume)<br>1 mg/m <sup>3</sup> (dust and mist) |
| IDLH                      | US IDLH (mg/m <sup>3</sup> )         | 100 mg/m <sup>3</sup> (dust, fume and mist)                         |
| NIOSH                     | NIOSH REL (TWA) (mg/m <sup>3</sup> ) | 1 mg/m <sup>3</sup> (dust and mist)<br>0.1 mg/m <sup>3</sup> (fume) |
| <b>Tin (7440-31-5)</b>    |                                      |   |
| ACGIH                     | ACGIH TWA (mg/m <sup>3</sup> )       | 2 mg/m <sup>3</sup>   |
| IDLH                      | US IDLH (mg/m <sup>3</sup> )         | 100 mg/m <sup>3</sup>   |
| NIOSH                     | NIOSH REL (TWA) (mg/m <sup>3</sup> ) | 2 mg/m <sup>3</sup>   |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Appearance : To be filled by Steve.  
Colour : No data available  
Odour : No data available  
Odour threshold : No data available  
pH : No data available  
Melting point : 660 °F  
Freezing point : Not applicable  
Boiling point : No data available  
Flash point : Not applicable  
Relative evaporation rate (butylacetate=1) : No data available  
Flammability (solid, gas) : Non flammable.  
Vapour pressure : No data available  
Relative vapour density at 20 °C : No data available  
Relative density : Not applicable  
Solubility : No data available

# SILVABRITE 100®

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

|                           |                     |
|---------------------------|---------------------|
| Log Pow                   | : No data available |
| Auto-ignition temperature | : Not applicable    |
| Decomposition temperature | : No data available |
| Viscosity, kinematic      | : Not applicable    |
| Viscosity, dynamic        | : No data available |
| Explosive limits          | : Not applicable    |
| Explosive properties      | : No data available |
| Oxidising properties      | : No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| Silver (7440-22-4) |                      |
|--------------------|----------------------|
| LD50 oral rat      | > 5000 mg/kg         |
| LD50 dermal rat    | > 2000 mg/kg         |
| Tin (7440-31-5)    |                      |
| LD50 oral rat      | 700 mg/kg            |
| ATE US (oral)      | 700 mg/kg bodyweight |

|                                   |  |
|-----------------------------------|--|
| Skin corrosion/irritation         | : Not classified   |
| Serious eye damage/irritation     | : Not classified   |
| Respiratory or skin sensitisation | : May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Germ cell mutagenicity            | : Not classified   |
| Carcinogenicity                   | : Not classified   |

|  |                  |
|--|------------------|
| Reproductive toxicity                            | : Not classified |
| Specific target organ toxicity (single exposure) | : Not classified |

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Very toxic to aquatic life.

# SILVABRITE 100®

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| <b>Silver (7440-22-4)</b> |  |
|---------------------------|--|
| LC50 fish 1               | 0.00155 - 0.00293 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |
| EC50 Daphnia 1            | 0.00024 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])                 |
| LC50 fish 2               | 0.0062 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])      |
| <b>Copper (7440-50-8)</b> |  |
| LC50 fish 1               | 0.0068 - 0.0156 mg/l (Exposure time: 96 h - Species: Pimephales promelas)            |
| EC50 Daphnia 1            | 0.03 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])                    |
| LC50 fish 2               | < 0.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])             |

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not applicable

### Transportation of Dangerous Goods

Not applicable

### Transport by sea

Not applicable

### Air transport

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| <b>Silver (7440-22-4)</b>  |   |
|--|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Subject to reporting requirements of United States SARA Section 313 |   |
| CERCLA RQ  | 1000 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm |
| <b>Copper (7440-50-8)</b>  |   |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Subject to reporting requirements of United States SARA Section 313 |   |
| CERCLA RQ  | 5000 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm |

# SILVABRITE 100®

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Tin (7440-31-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

#### Silver (7440-22-4)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

#### Copper (7440-50-8)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

#### Tin (7440-31-5)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

### 15.3. US State regulations

#### Silver (7440-22-4)

U.S. - Massachusetts - Right To Know List  
U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
U.S. - Pennsylvania - RTK (Right to Know) List

#### Copper (7440-50-8)

U.S. - Massachusetts - Right To Know List  
U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
U.S. - Pennsylvania - RTK (Right to Know) List

#### Tin (7440-31-5)

U.S. - Massachusetts - Right To Know List  
U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

Full text of H-statements:

H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

NFPA health hazard

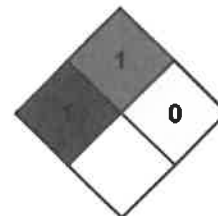
: 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard

: 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

: 1 Slight Hazard - Irritation or minor reversible injury possible  
\* - Chronic (long-term) health effects may result from repeated overexposure

Flammability

: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

: B  
B - Safety glasses, Gloves

SDS US (GHS HazCom 2012)

*Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).*  
Lucas-Milhaupt, Inc.