### SECTION 1: Identification

1.1. Identification

<table>
<thead>
<tr>
<th>Product form</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade name</td>
<td>50/50</td>
</tr>
<tr>
<td>Product code</td>
<td>A00000077</td>
</tr>
</tbody>
</table>

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 - 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

<table>
<thead>
<tr>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogenicity, Category 1B</td>
</tr>
<tr>
<td>Reproductive toxicity, Category 1A</td>
</tr>
</tbody>
</table>

Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements

**GHS-US labelling**

Hazard pictograms (GHS-US):

![Hazard Pictogram](image)

Signal word (GHS-US): Danger

Hazard statements (GHS-US):

- H350 - May cause cancer.
- H360 - May damage fertility or the unborn child.

Precautionary statements (GHS-US):

- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P308+P313 - If exposed or concerned: Get medical advice/attention.
- P405 - Store locked up.
- 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

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>(CAS-No.) 7439-92-1</td>
<td>48 - 52</td>
</tr>
<tr>
<td>Tin</td>
<td>(CAS-No.) 7440-31-5</td>
<td>48.5 - 50.5</td>
</tr>
</tbody>
</table>
SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general: IF exposed or concerned: Get medical advice/attention.
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: Rinse mouth. Call a poison center or a doctor if you feel unwell.

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: Do not breathe dust/fume/gas/mist/vapours/spray. Only qualified personnel equipped with suitable protective equipment may intervene.

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. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment: Collect spillage.
Methods for cleaning up: Mechanically recover the product. Notify authorities if product enters sewers or public waters.
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. Avoid contact during pregnancy/while nursing. Do not breathe dust/fume/gas/mist/vapours/spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly.

Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Separate working clothes from town clothes. Launder separately.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a well-ventilated place. Keep cool. Store locked up.
SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH TWA (mg/m³)</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
<th>NIOSH REL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (7439-92-1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDLH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIOSH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tin (7440-31-5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDLH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIOSH</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 inadequate ventilation] wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>White to gray metallic luster, various form.</td>
</tr>
<tr>
<td>Colour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>421 °F</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Viscosity, kinematic: No data available
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
Oxidizing agent. Acids.

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 (oral): Not classified
Acute toxicity (dermal): Not classified
Acute toxicity (inhalation): Not classified

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: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: May cause cancer.

Lead (7439-92-1)

IARC group: 2A - Probably carcinogenic to humans
National Toxicity Program (NTP) Status: Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list: Yes

Reproductive toxicity: May damage fertility or the unborn child.
STOT-single exposure: Not classified
STOT-repeated exposure: Not classified
Aspiration hazard: Not classified
Viscosity, kinematic: No data available

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: Very toxic to aquatic life.
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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Listing and Reporting Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (7439-92-1)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td></td>
<td>Subject to reporting requirements of United States SARA Section 313</td>
</tr>
<tr>
<td>CERCLA RO</td>
<td>10 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is &gt;100 µm</td>
</tr>
<tr>
<td>Tin (7440-31-5)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>

15.2. International regulations

<table>
<thead>
<tr>
<th>Substance</th>
<th>Listing and Reporting Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (7439-92-1)</td>
<td>Listed on the TCSI (Taiwan Chemical Substance Inventory)</td>
</tr>
<tr>
<td>Tin (7440-31-5)</td>
<td>Listed on the TCSI (Taiwan Chemical Substance Inventory)</td>
</tr>
</tbody>
</table>
WARNING: This product can expose you to Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

<table>
<thead>
<tr>
<th>Component</th>
<th>Carcinogenicity</th>
<th>Developmental toxicity</th>
<th>Reproductive toxicity male</th>
<th>Reproductive toxicity female</th>
<th>No significant risk level (NSRL)</th>
<th>Maximum allowable dose level (MADL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(7439-92-1)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>15 µg/day (oral)</td>
<td>0.5 µg/day</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>State or local regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead(7439-92-1)</td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td></td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List</td>
</tr>
<tr>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
<tr>
<td>Tin(7440-31-5)</td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td></td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

SECTION 16: Other information

Full text of H-statements:

<table>
<thead>
<tr>
<th>H350</th>
<th>May cause cancer.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H360</td>
<td>May damage fertility or the unborn child.</td>
</tr>
</tbody>
</table>

 NFPA health hazard: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

 NFPA fire hazard: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

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

Hazard Rating

Health: 2 Moderate Hazard - Temporary or minor injury may occur

* - Chronic (long-term) health effects may result from repeated overexposure

Flammability: 0 Minimal Hazard - Materials that will not burn

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)

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Lucas-Milhaupt, Inc.