SECTION 1: Identification

1.1. Identification

Product form: Mixture
Trade name: EASY-FLO® 25
Product code: A00000061

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

GHS-US classification

| Acute toxicity (inhalation: dust, mist) | H330 | Fatal if inhaled. |
| Germ cell mutagenicity, Category 2 | H341 | Suspected of causing genetic defects. |
| Carcinogenicity, Category 1A | H350 | May cause cancer. |
| Reproductive toxicity, Category 2 | H361 | Suspected of damaging fertility or the unborn child. |
| Specific target organ toxicity — Repeated exposure, Category 1 | H372 | Causes damage to organs through prolonged or repeated exposure. |

Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labelling

Hazard pictograms (GHS-US):

- ☢️ - Danger

Signal word (GHS-US): Danger

Hazard statements (GHS-US):

- H330 - Fatal if inhaled.
- H341 - Suspected of causing genetic defects.
- H350 - May cause cancer.
- H361 - Suspected of damaging fertility or the unborn child.
- H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS-US):

- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
- P264 - Wash hands, forearms and face thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P284 - [In case of inadequate ventilation] wear respiratory protection.
- P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
- P308+P313 - If exposed or concerned: Get medical advice/attention.
- P310 - Immediately call a poison center/doctor.
- P314 - Get medical advice/attention if you feel unwell.
P320 - Specific treatment is urgent (see supplemental first aid instruction on this label).
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
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>Copper</td>
<td>(CAS-No.) 7440-50-8</td>
<td>33 - 37</td>
</tr>
<tr>
<td>Zinc</td>
<td>(CAS-No.) 7440-66-6</td>
<td>24.5 - 28.5</td>
</tr>
<tr>
<td>Silver</td>
<td>(CAS-No.) 7440-22-4</td>
<td>24 - 26</td>
</tr>
<tr>
<td>Cadmium</td>
<td>(CAS-No.) 7440-43-9</td>
<td>12.5 - 14.5</td>
</tr>
</tbody>
</table>

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 physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a physician immediately.
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 : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapours/spray.

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. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. 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 locked up. Keep container tightly closed. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Silver (7440-22-4)</th>
<th>ACGIH TWA (mg/m³)</th>
<th>0.1 mg/m³ (dust and fume)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>0.01 mg/m³</td>
</tr>
<tr>
<td>IDLH</td>
<td>US IDLH (mg/m³)</td>
<td>10 mg/m³ (dust)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>0.01 mg/m³ (dust)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cadmium (7440-43-9)</th>
<th>ACGIH TWA (mg/m³)</th>
<th>0.01 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>0.1 mg/m³ (fume)</td>
</tr>
<tr>
<td>IDLH</td>
<td>US IDLH (mg/m³)</td>
<td>9 mg/m³ (dust)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>1 mg/m³ (dust and mist)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>OSHA PEL (Ceiling) (mg/m³)</td>
<td>5 µg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Copper (7440-50-8)</th>
<th>ACGIH TWA (mg/m³)</th>
<th>0.2 mg/m³ (fume)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>0.1 mg/m³ (fume)</td>
</tr>
<tr>
<td>IDLH</td>
<td>US IDLH (mg/m³)</td>
<td>100 mg/m³ (dust, fume and mist)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>0.1 mg/m³ (fume)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zinc (7440-66-6)</th>
<th>ACGIH TWA (mg/m³)</th>
<th>2 mg/m³ (as ZnO)</th>
</tr>
</thead>
</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

Physical state: Solid
Appearance: White to light yellow metallic luster, various forms.
Colour: No data available
Odour: No data available
Odour threshold: No data available
pH: No data available
Melting point: 1375 °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
Log Pow: No data available
Auto-ignition temperature: Not applicable
Decomposition temperature: No data available
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

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) | : Inhalation:dust,mist: Fatal if inhaled. |

ATE US (dust,mist) 0.37 mg/l/4h

Silver (7440-22-4)
- LD50 oral rat > 5000 mg/kg
- LD50 dermal rat > 2000 mg/kg

Cadmium (7440-43-9)
- LD50 oral rat 1140 mg/kg
- LC50 inhalation rat (mg/l) 25 mg/m³ (Exposure time: 30 min)
- ATE US (oral) 1140 mg/kg bodyweight
- ATE US (gases) 100 ppmv/4h
- ATE US (vapours) 0.5 mg/l/4h
- ATE US (dust,mist) 0.05 mg/l/4h

Zinc (7440-66-6)
- LD50 oral rat 630 mg/kg

| Skin corrosion/irritation | : Not classified |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Suspected of causing genetic defects. |
| Carcinogenicity | : May cause cancer. |

<table>
<thead>
<tr>
<th>Cadmium (7440-43-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC group</td>
</tr>
<tr>
<td>National Toxicity Program (NTP) Status</td>
</tr>
<tr>
<td>In OSHA Hazard Communication Carcinogen list</td>
</tr>
<tr>
<td>In OSHA Specifically Regulated Carcinogen list</td>
</tr>
</tbody>
</table>

| Reproductive toxicity | : Suspected of damaging fertility or the unborn child. |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Causes damage to organs through prolonged or repeated exposure. |

<table>
<thead>
<tr>
<th>Cadmium (7440-43-9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOT-repeated exposure</td>
</tr>
</tbody>
</table>

| Aspiration hazard | : Not classified |
| Viscosity, kinematic | : No data available |

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects. Very toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Silver (7440-22-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
</tr>
<tr>
<td>LC50 fish 2</td>
</tr>
</tbody>
</table>
Cadmium (7440-43-9)

<table>
<thead>
<tr>
<th>Test End Point</th>
<th>Value (mg/l)</th>
<th>Exposure Time</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>0.003</td>
<td>96 h</td>
<td>Oncorhynchus mykiss (flow-through)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>0.0244</td>
<td>48 h</td>
<td>Daphnia magna (Static)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>0.006</td>
<td>96 h</td>
<td>Oncorhynchus mykiss (static)</td>
</tr>
</tbody>
</table>

Copper (7440-50-8)

<table>
<thead>
<tr>
<th>Test End Point</th>
<th>Value (mg/l)</th>
<th>Exposure Time</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>0.0068 - 0.0156</td>
<td>96 h</td>
<td>Pimephales promelas</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>0.03</td>
<td>48 h</td>
<td>Daphnia magna (Static)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>&lt; 0.3</td>
<td>96 h</td>
<td>Pimephales promelas (static)</td>
</tr>
</tbody>
</table>

Zinc (7440-66-6)

<table>
<thead>
<tr>
<th>Test End Point</th>
<th>Value (mg/l)</th>
<th>Exposure Time</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>2.16 - 3.05</td>
<td>96 h</td>
<td>Pimephales promelas (flow-through)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>0.139 - 0.908</td>
<td>48 h</td>
<td>Daphnia magna (Static)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>0.211 - 0.269</td>
<td>96 h</td>
<td>Pimephales promelas (semistatic)</td>
</tr>
</tbody>
</table>

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

Silver (7440-22-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
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
Cadmium (7440-43-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

CERCLA RQ 10 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

Copper (7440-50-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
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

Zinc (7440-66-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

CERCLA RQ 454 kg no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm

15.2. International regulations

Silver (7440-22-4)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

Cadmium (7440-43-9)
Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

Copper (7440-50-8)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

Zinc (7440-66-6)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

**WARNING:** This product can expose you to Cadmium, 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>Cadmium(7440-43-9)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>0.05 µg/day (inhalation)</td>
<td>4.1 µg/day oral</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>State or local regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver(7440-22-4)</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>Cadmium(7440-43-9)</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>Copper(7440-50-8)</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>Zinc(7440-66-6)</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>
</tbody>
</table>
### SECTION 16: Other information

Full text of H-statements:

<table>
<thead>
<tr>
<th>H330</th>
<th>Fatal if inhaled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H341</td>
<td>Suspected of causing genetic defects.</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer.</td>
</tr>
<tr>
<td>H361</td>
<td>Suspected of damaging fertility or the unborn child.</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure.</td>
</tr>
</tbody>
</table>

**NFPA health hazard**
- 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

**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**
- 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
  - * - 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)**

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