### 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>HANDY FLO 801</td>
</tr>
<tr>
<td>Product code</td>
<td>A0000907</td>
</tr>
</tbody>
</table>

#### 1.2. Recommended use and restrictions on use

Recommended use: Binders for metal brazing

#### 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 (inhal.), Category 4: H332 - Harmful if inhaled.
- 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):**
  - ![](image)
  - ![](image)

- **Signal word (GHS US):** Danger
- **Hazard statements (GHS US):**
  - H332 - Harmful if inhaled.
  - H372 - Causes damage to organs through prolonged or repeated exposure.
- **Precautionary statements (GHS US):**
  - P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
  - P261 - Avoid breathing 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.
  - P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
  - P312 - Call a poison center/doctor if you feel unwell.
  - P314 - Get medical advice/attention if you feel unwell.
  - P301 - 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** | **%**
---|---|---
Dimethylamine hydrochloride | (CAS-No.) 506-59-2 | 17.82
GLYCINE ETHYL ESTER HYDROCHLORIDE 99% | (CAS-No.) 623-33-6 | 2
Petroleum distillates, hydrotreated light | (CAS-No.) 64742-47-8 | 1.27

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 after inhalation: Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact: Irritation.

Symptoms/effects after eye contact: Eye irritation.

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**

Fire hazard: May form combustible dust concentrations in air.

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. Avoid contact with skin and eyes.

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**

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. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid dust formation.

Hygiene measures: Wash contaminated clothing before reuse. 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

<table>
<thead>
<tr>
<th>Substance/Chemical</th>
<th>Control parameter</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light (64742-47-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimethylamine hydrochloride (506-59-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GLYCINE ETHYL ESTER HYDROCHLORIDE 99% (623-33-6)</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 insufficient ventilation, wear suitable respiratory equipment

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>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>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</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>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
HANDY FLO 801
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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). Avoid dust formation. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials
Oxidizing agent.

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: Harmful if inhaled.

<table>
<thead>
<tr>
<th>Source</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (gases)</td>
<td>4500 ppmv/4h</td>
</tr>
<tr>
<td>ATE US (vapours)</td>
<td>11 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust,mist)</td>
<td>1.5 mg/l/4h</td>
</tr>
</tbody>
</table>

Petroleum distillates, hydrotreated light (64742-47-8)

<table>
<thead>
<tr>
<th>Source</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>&gt; 5.2 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (vapours)</td>
<td>3 mg/l/4h</td>
</tr>
</tbody>
</table>

Dimethylamine hydrochloride (506-59-2)

<table>
<thead>
<tr>
<th>Source</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>1070 mg/kg</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1070 mg/kg bodyweight</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Eye irritation.
SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

<table>
<thead>
<tr>
<th>Petroleum distillates, hydrotreated light (64742-47-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>2.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Petroleum distillates, hydrotreated light (64742-47-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>61 - 159</td>
</tr>
</tbody>
</table>

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>Petroleum distillates, hydrotreated light (64742-47-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimethylamine hydrochloride (506-59-2)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GLYCINE ETHYL ESTER HYDROCHLORIDE 99% (623-33-6)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
<td></td>
</tr>
</tbody>
</table>

15.2. International regulations
### 15.3. US State regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>State or local regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light (64742-47-8)</td>
<td></td>
</tr>
<tr>
<td>Dimethylamine hydrochloride (506-59-2)</td>
<td></td>
</tr>
<tr>
<td>GLYCINE ETHYL ESTER HYDROCHLORIDE 99% (623-33-6)</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 16: Other information

Full text of H-statements:

- **H332**: Harmful if inhaled.
- **H372**: Causes damage to organs through prolonged or repeated exposure.

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.