SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : HANDY FLO 475
Product code : 83-475

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Lucas-Milhaupt, Inc.
5656 South Pennsylvania Ave.
Cudahy, WI 53110 - USA
T (414)-769-6000
Contact: SDS Contact

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

Skin corrosion/irritation, Category 2 H315 Causes skin irritation.
Serious eye damage/eye irritation, Category 2 H319 Causes serious eye irritation.

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) : Warning
Hazard statements (GHS US) : H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
Precautionary statements (GHS US) :
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - If on skin: Wash with plenty of water
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 - Specific treatment (see supplemental first aid instruction on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

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>Ethylene glycol</td>
<td>(CAS-No.) 107-21-1</td>
<td>10.95</td>
</tr>
</tbody>
</table>

04/29/2020 EN (English)
**SODIUM HYDROXIDE 10 %**

### Product identifier

<table>
<thead>
<tr>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(CAS-No.) 1310-73-2</td>
<td>2.26</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 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. 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**: Rinse mouth. 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**: Water spray. Dry powder. Foam.
- **Unsuitable extinguishing media**: Water.

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

No additional information available

**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.

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

**SODIUM HYDROXIDE 10 % (1310-73-2)**

<table>
<thead>
<tr>
<th></th>
<th>ACGIH Ceiling (mg/m³)</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
<th>US IDLH (mg/m³)</th>
<th>NIOSH REL (ceiling) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>2 mg/m³</td>
<td>2 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDLH</td>
<td></td>
<td></td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>NIOSH</td>
<td></td>
<td></td>
<td></td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

**Ethylene glycol (107-21-1)**

<table>
<thead>
<tr>
<th></th>
<th>ACGIH TWA (ppm)</th>
<th>ACGIH STEL (mg/m³)</th>
<th>ACGIH STEL (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>25 ppm</td>
<td>10 mg/m³ (inhalable particulate matter, aerosol only)</td>
<td>50 ppm</td>
</tr>
<tr>
<td>ACGIH</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 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>
</tbody>
</table>
HANDY FLO 475
Safety Data Sheet

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

**SODIUM HYDROXIDE 10 % (1310-73-2)**
- LD50 oral rat: 140 - 340 mg/kg
- LD50 dermal rabbit: 1350 mg/kg
- ATE US (oral): 140 mg/kg bodyweight
- ATE US (dermal): 1350 mg/kg bodyweight

**Ethylene glycol (107-21-1)**
- LD50 oral rat: 4700 mg/kg
- LD50 dermal rat: 10600 mg/kg
- ATE US (oral): 4700 mg/kg bodyweight
- ATE US (dermal): 10600 mg/kg bodyweight

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Causes serious eye irritation.
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: Not classified
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>Substance</th>
<th>LC50 fish 1</th>
<th>EC50 Daphnia 1</th>
<th>LC50 fish 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>SODIUM HYDROXIDE 10% (1310-73-2)</td>
<td>45.4 mg/l</td>
<td>46300 mg/l</td>
<td>14 - 18 ml/l</td>
</tr>
<tr>
<td>Ethylene glycol (107-21-1)</td>
<td>41000 mg/l</td>
<td>46300 mg/l</td>
<td>14 - 18 ml/l</td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

Ethylene glycol (107-21-1)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol (107-21-1)</td>
<td>-1.93</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>Substance</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>SODIUM HYDROXIDE 10% (1310-73-2)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>CERCLA RQ</td>
<td>1000 lb</td>
</tr>
<tr>
<td>Ethylene glycol (107-21-1)</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></td>
<td>Listed on EPA Hazardous Air Pollutant (HAPS)</td>
</tr>
<tr>
<td>CERCLA RQ</td>
<td>5000 lb</td>
</tr>
</tbody>
</table>
15.2. International regulations

<table>
<thead>
<tr>
<th>Component</th>
<th>State or local regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SODIUM HYDROXIDE 10 % (1310-73-2)</td>
<td>Listed on the TCSI (Taiwan Chemical Substance Inventory)</td>
</tr>
<tr>
<td>Ethylene glycol (107-21-1)</td>
<td>Listed on the TCSI (Taiwan Chemical Substance Inventory)</td>
</tr>
</tbody>
</table>

15.3. US State regulations

**WARNING:** This product can expose you to Ethylene oxide, 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>State or local regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol (107-21-1)</td>
<td>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</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE 10 % (1310-73-2)</td>
<td>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</td>
</tr>
</tbody>
</table>

SECTION 16: Other information

Full text of H-statements:

<table>
<thead>
<tr>
<th>H-statement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
</tbody>
</table>

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.