

# SAFETY DATA SHEET FOR CHEMICAL PRODUCTS



Product name: HANDY FLO 460

Revision date:

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SDS Nr:

Version: 2.0

## SECTION 1 Chemical product and company identification

**Chemical name (Chinese Name)** :  
**Chemical name (English name)** : HANDY FLO 460  
**Name of company** : Lucas-Milhaupt, Inc.  
**Address** : USA, Cudahy, 5656 South Pennsylvania Ave.  
**Zip code** : 53110  
**Tel.** : (414)-769-6000  
**E-mail** : LM\_SDSinfo@lucasmilhaupt.com  
**Website** : www.Lucasmilhaupt.com  
**Emergency number** : CHEMTREC within the USA and Canada: 1-800-424-9300  
CHEMTREC outside the USA and Canada +1 701-741-5970

## SECTION 2 Hazards identification



### Emergency overview

----- TO BE COMPLETED -----

### GHS classification

**Physical hazards** : Flammable liquids, Category 2  
**Health hazards** : Acute toxicity (oral), Category 4  
: Serious eye damage/eye irritation, Category 2A  
Other hazards not mentioned above are Not applicable or No data is available.

### Label elements

**Hazard pictograms (GHS-CN)** :    
**Signal word (GHS-CN)** : Danger.  
**Hazard statements (GHS-CN)** : H225 - Highly flammable liquid and vapour.  
H302 - Harmful if swallowed.  
H319 - Causes serious eye irritation.

### Precautionary statements (GHS-CN)

**Prevention precautionary statements** : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/bond container and receiving equipment.  
P241 - Use explosion-proof electrical/ventilating/lighting equipment.  
P264 - Wash hands, forearms and face thoroughly after handling.

|                                   |   |
|-----------------------------------|---|
|                                   | P270 - Do not eat, drink or smoke when using this product.  |
|                                   | P280 - Wear protective gloves/protective clothing/eye protection/face protection.   |
| Response Precautionary Statements | : P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.<br>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P330 - Rinse mouth.<br>P337+P313 - If eye irritation persists: Get medical advice/attention.<br>P370+P378 - In case of fire: Use media other than water to extinguish. |
| Storage precautionary statements  | : P403+P235 - Store in a well-ventilated place. Keep cool.  |
| Disposal precautionary statements | : P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.  |

**Additional information**

|                               |   |
|-------------------------------|---|
| Physical and chemical hazards | : Highly flammable liquid and vapour.                                       |
| Health hazard                 | : Harmful if swallowed.<br>Causes serious eye irritation.<br>Eye irritation |
| Environmental hazards         | : No additional information available                                       |
| Other hazards                 | : No additional information available                                       |

**SECTION 3 Composition/information on ingredients**

**Product form** : Mixture.

| Name  | CAS-No.    | Concentration(%) |
|---|------------|------------------|
| Ethylene glycol   | 107-21-1   | 30               |
| Cellulose hydroxypropyl methyl ether  | 9004-65-3  | 1.584            |
| Petroleum distillates, hydrotreated light                                     | 64742-47-8 | 0.0825           |
| Poly(oxy-1,2-ethanediyl), .alpha.- (dinonylphenyl)-.omega.-hydroxy-, branched | 68891-21-4 | 0.004875         |
| Polyethylene glycol branched nonylphenyl ether                                | 68412-54-4 | 0.002625         |
| Ethylene oxide  | 75-21-8    | 0.0000001875     |

|             |          |            |
|-------------|----------|------------|
| 1,4-Dioxane | 123-91-1 | 0.00000015 |
|-------------|----------|------------|

## SECTION 4 First aid measures

### Emergency

- 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 : Rinse skin with water/shower.  
Take off immediately all contaminated clothing.
- 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.  
Rinse mouth

### Most Important Symptoms/Effects

Eye irritation

### Personal Protection in First Aid and Measures

No additional information available

### Notes for the doctor

- Other medical advice or treatment : Treat symptomatically

## SECTION 5 Fire fighting measures

### Extinguishing media

- Suitable extinguishing media : Dry powder  
Water spray  
Foam  
Carbon dioxide
- Unsuitable extinguishing media : Water

### Special hazard

- Fire hazard : Highly flammable liquid and vapour.
- Hazardous decomposition products in case of fire : Toxic fumes may be released

### Advice for firefighters and protective measures

- Firefighting instructions : No additional information available

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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

### Personal precautions, protective equipment and emergency procedures

General measures : No additional information available  
Personal Precautions, Protective Equipment and Emergency Procedures : No additional information available

#### For non-emergency personnel

Emergency procedures : Ventilate spillage area  
No open flames, no sparks, and no smoking  
Avoid contact with skin and eyes

#### 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"

**Environmental precautions** : Avoid release to the environment

### Methods and Equipment for Containment and Cleaning up

Methods for cleaning : No additional information available

: No additional information available

For containment : No additional information available

### Prevention Measures for Secondary Accidents

Prevention Measures for Secondary Accidents : No additional information available

Other information : Dispose of materials or solid residues at an authorized site

## SECTION 7 Handling and storage

### Handling

Precautions for safe handling : Ensure good ventilation of the work station  
Wear personal protective equipment  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Ground/bond container and receiving equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.

Flammable vapours may accumulate in the container  
 Use explosion-proof equipment  
 Avoid contact with skin and eyes

Hygiene measures : Do not eat, drink or smoke when using this product.  
 Always wash hands after handling the product

Local and general ventilation : No additional information available

**Storage**

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

Technical measures : Ground/bond container and receiving equipment.

Material used in packaging/containers : No additional information available

**SECTION 8 Exposure controls / Personal protection equipment****Occupational Exposure Limits**

| <b>Ethylene glycol</b>                   |   |
|--|---|
| OEL TWA                                  | 20 mg/m <sup>3</sup>  |
| OEL STEL                                 | 40 mg/m <sup>3</sup>  |
| Catalogue of Occupational Hazard Factors | Category 3 - Chemicals  |
| ACGIH STEL (mg/m <sup>3</sup> )          | 10 mg/m <sup>3</sup> (inhalable particulate matter, aerosol only) |
| ACGIH STEL (ppm)                         | 50 ppm (vapor fraction)   |
| ACGIH TWA (ppm)                          | 25 ppm (vapor fraction)   |
| ACGIH chemical category                  | Not Classifiable as a Human Carcinogen                            |

**Biological limit values**

No additional information available

**Monitoring methods**

No additional information available

**Appropriate engineering controls** : Ensure good ventilation of the work station

**Personal protective equipment**

Environmental exposure controls : Avoid release to the environment.

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

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## SECTION 9 Physical and chemical properties

|  |  |
|--|--|
| <b>Physical state</b>                    | : Liquid   |
| <b>Appearance</b>                        | : No data available  |
| <b>Colour</b>                            | : Mixture contains one or more component(s) which have the following colour(s):<br>clear Colourless  |
| <b>Odour</b>                             | : There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.<br>Mixture contains one or more component(s) which have the following odour:<br>ether-like |
| <b>pH</b>                                | : No data available  |
| <b>Melting point</b>                     | : Not applicable   |
| <b>Freezing point</b>                    | : No data available  |
| <b>Boiling point</b>                     | : No data available  |
| <b>Flash point</b>                       | : No data available  |
| <b>Auto-ignition temperature</b>         | : No data available  |
| <b>Decomposition temperature</b>         | : No data available  |
| <b>Flammability (solid, gas)</b>         | : Non flammable.   |
| <b>Vapour pressure</b>                   | : No data available  |
| <b>Relative vapour density at 20 ° C</b> | : No data available  |
| <b>Density</b>                           | : No data available  |
| <b>Solubility</b>                        | : No data available  |
| <b>Log Pow</b>                           | : No data available  |
| <b>Lower explosive limit (LEL)</b>       | : No data available  |
| <b>Upper explosive limit (UEL)</b>       | : No data available  |
| <b>Radioactive</b>                       | : No   |

## SECTION 10 Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | : The product is non-reactive under normal conditions of use, storage and transport. Highly flammable liquid and vapour.   |
| <b>Chemical stability</b>                 | : Stable under normal conditions   |
| <b>Possibility of hazardous reactions</b> | : No dangerous reactions known under normal conditions of use  |
| <b>Conditions to avoid</b>                | : None under recommended storage and handling conditions (see section 7). Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition |
| <b>Incompatible materials</b>             | : No additional information available  |
| <b>Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced  |

**Other properties** : No additional information available

## SECTION 11 Toxicological information

### Acute toxicity

Acute toxicity (oral) : Oral: Harmful if swallowed.

Acute toxicity (dermal) : No data available

Acute toxicity (inhalation) : No data available

| HANDY FLO 460   |                           |
|-----------------|---------------------------|
| ATE CN (oral)   | 1666.667 mg/kg bodyweight |
| Ethylene glycol |                           |
| LD50 oral rat   | 4700 mg/kg                |
| LD50 dermal rat | 10600 mg/kg               |
| ATE CN (oral)   | 500 mg/kg bodyweight      |
| ATE CN (dermal) | 10600 mg/kg bodyweight    |

### Skin corrosion/irritation

Skin corrosion/irritation : No data available

### Serious eye damage/irritation

Serious eye damage/irritation : Causes serious eye irritation.

### Respiratory or skin sensitisation

Respiratory or skin sensitisation : No data available

### Germ cell mutagenicity

Germ cell mutagenicity : No data available

### Carcinogenicity

Carcinogenicity : No data available

### Reproductive toxicity

Reproductive toxicity : No data available

### STOT-single exposure

STOT-single exposure : No data available

### STOT-repeated exposure

STOT-repeated exposure : No data available

### Aspiration hazard

Aspiration hazard : No data available

## SECTION 12 Ecological information

### Ecotoxicity

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

Acute aquatic toxicity : No data available

Chronic aquatic toxicity : No data available

| Ethylene glycol |  |
|-----------------|--|
| LC50 fish 1     | 41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)            |
| LC50 fish 2     | 14 - 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static]) |
| EC50 Daphnia 1  | 46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)                  |

### Persistence and degradability

No additional information available

### Bioaccumulative potential

| Ethylene glycol |       |
|-----------------|-------|
| Log Pow         | -1.93 |

### Mobility in soil

| Ethylene glycol |       |
|-----------------|-------|
| Log Pow         | -1.93 |

### Other adverse effects

Classification procedure (Ozone) : No data available

## SECTION 13 Disposal considerations

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

Contaminated container and packaging : No additional information available

Additional information : Flammable vapours may accumulate in the container.

## SECTION 14 Transport information

### UN number

UN-No. (UN RTDG) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

UN-No. (ADN) : Not applicable

UN-No. (RID) : Not applicable



**Proper Shipping Name**

Proper Shipping Name (UN RTDG) : Not applicable  
Proper Shipping Name (IMDG) : Not applicable  
Proper Shipping Name (IATA) : Not applicable  
Proper Shipping Name (ADN) : Not applicable  
Proper Shipping Name (RID) : Not applicable

**Transport hazard class(es)**

## Overland transport

Transport hazard class(es) (UN RTDG) : Not applicable

## Transport by sea

Transport hazard class(es) (IMDG) : Not applicable

## Air transport

Transport hazard class(es) (IATA) : Not applicable

## Inland waterway transport

Transport hazard class(es) (ADN) : Not applicable

## Rail transport

Transport hazard class(es) (RID) : Not applicable

**Packing group**

Packing group (UN RTDG) : Not applicable  
Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable  
Packing group (ADN) : Not applicable  
Packing group (RID) : Not applicable

**Marine pollutant (IMDG)**

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available.

**Special transport precautions**

## Overland transport

No data available

## Transport by sea

No data available

## Air transport

No data available

## Inland waterway transport

No data available

## Rail transport

No data available

**SECTION 15 Regulatory information**

## SECTION 16 Other information

SDS CN (GB/T 17519-2013)

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Lucas-Milhaupt, Inc.