Handy Flo 420/XB7 and DF 420

Safety Data Sheet

1. Product and Company Identification

Manufacturer

Lucas-Milhaupt, Inc.
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Telephone: 414-769-6000
www.lucasmilhaupt.com

Emergency Phone Number

Chemtrec: 800-424-9300

SDS Number: 263
Product Code: 83-420
Product Use(s): Binder for metal joining processes

2. Hazards Identification

Classification(s)

Specific Target Organ Toxicity, Repeated Exposure: Hazard Category 2

Label Symbol(s): Health Hazard

Label Signal Word(s): Warning

Label Hazard Statement(s)

May cause damage to kidneys through prolonged or repeated exposure.

Label Precautionary Statement(s)

Do not breathe mist or vapors.
Get medical advice/attention if you feel unwell.
Dispose of contents/container in accordance with applicable regulations.
The acute toxicities of 45-60% of the product’s ingredients are unknown.

3. Composition/Information on Ingredients

Ingredient	CAS Number	%	Impurities
Ethylene glycol	107-21-1	40-55	None known

4. First Aid Measures

Eyes

Flush affected areas with water for at least 15 minutes. Seek medical assistance if necessary.

Skin

Remove contaminated clothing. Wash affected area with large quantities of water for at least five minutes. Seek medical attention if necessary. Launder or dry-clean clothing before reuse.

Ingestion

Do not induce vomiting unless directed by competent medical authority. If the subject is unconscious, seek immediate medical assistance. Do not attempt to give anything by mouth to an unconscious or convulsive person.

Inhalation

If signs and symptoms of toxicity are observed, remove subject from area, administer oxygen, and seek medical attention. Keep the subject warm and at rest. Perform artificial respiration if breathing has stopped.

Note to Physician or Poison Control Center

The component ethylene glycol may be harmful by ingestion. There is no specific antidote. Treat symptomatically. No components are absorbed through the skin, although prolonged skin contact may cause irritation.

5. Fire Fighting Measures

Extinguishing Media

Use water, dry chemical, foam, or carbon dioxide.

Fire and Explosion Hazards

This product is non-flammable and non-explosive. If it is present in a fire or explosion, however, potential decomposition byproducts may include carbon monoxide, smoke, and irritant gases.

Fire Fighting Instructions

If fighting a fire in which this product is present, wear a self-contained breathing apparatus with full-facepiece operated in pressure-demand or other positive pressure mode.

6. Accidental Release Measures

Methods and Materials

Isolate spilled product and transfer to impervious containers.

Personal Precautions

Avoid contact with skin, eyes, and mucous membranes. Wear appropriate protective equipment (e.g., gloves, chemical goggles) during cleanup.

Environmental Precautions

Prevent spills from entering sewers or contaminating soil.

7. Handling and Storage

Handling Precautions

Avoid contact with skin and clothing, using protective equipment as needed.

Work and Hygiene Practices

To prevent ingestion following use of the product, wash hands and face before eating, drinking, applying cosmetics, or using tobacco. Remove contaminated clothing or protective equipment before entering eating/drinking areas.

Storage Precautions

Store in a cool place away from incompatible materials (see Section #10).

8. Exposure Controls and Personal Protection

Ingredients - Exposure Limits

Ethylene glycol
ACGIH TLV: 100 mg/m3 "Ceiling" (aerosol) No OSHA PEL(s)

Ingredients – Biological Limits

Ethylene glycol
No ACGIH BEI(s) or other biological limit(s)

Engineering Controls

Use dilution or local exhaust ventilation adequate to maintain concentrations of all components and their byproducts to within their applicable standards.

Eye/Face Protection

Wear eye protection adequate to prevent eye contact with the product and injury if the product is used with a flame. Plastic-frame spectacles with side shields are recommended.

Skin Protection

Wear protective gloves and clothing to prevent skin injuries if the product is used with a flame and/or for prolonged contact with the product. Avoid flammable fabrics.

Respiratory Protection

If an exposure level to a component(s) exceeds an applicable standard, use a NIOSH-approved respirator having a configuration (facepiece, filter media, assigned protection factor, etc.) effective for the concentration of the component(s) generated. For guidance on selection and use of respirators, consult American National Standard Z88.2 (ANSI, New York, NY 1003, USA).

9. Physical and Chemical Properties

Appearance: viscous liquid
Odor: faint
Odor threshold: not determined
pH: not determined
Melting point: not applicable
Freezing point: <32F/0C.
Boiling point: >212F./100C.
Boiling range: not determined
Flash Point: >232F./111C.
Autoignition Point: >748F./398C.
Flammability Class: IIIB

Lower/Upper Explosive Limits: not determined
Evaporation Rate: not determined
Vapor pressure: <0.1 mm Hg @ 20C.
Vapor density: not determined
Relative density (H2O): approx. 1.06
Solubility (H2O): soluble
Oil-water partition coefficient: not determined
Decomposition temperature: not determined
Viscosity: not determined

10. Stability and Reactivity

Reactivity: none reasonably foreseeable
Stability: stable
Hazardous Polymerization: will not occur
Risk of Dangerous Reactions: some components of the product may decompose at elevated temperatures.

Incompatible Materials

Strong oxidizing agents; strong acids; strong alkalis.

Hazardous Decomposition Products

Carbon monoxide, smoke, and irritant gases.

11. Toxicological Information

This product has not been tested for toxicology by the manufacturer.

Ingredients - Toxicological Data

Ethylene glycol
LD50: >2,000 mg/kg (oral/rat) LC50: No data available

Primary Routes(s) of Entry

Ingestion; inhalation.

Eye Hazards

Eye contact may cause irritation.

Skin Hazards

Prolonged contact can produce dermal irritation.

Ingestion Hazards

Some components of this product are potentially harmful if ingested, and ingestion may cause one or more of the following symptoms and effects: nausea, vomiting, gastrointestinal irritation, cramps, convulsions, and damage to the central nervous system and kidneys.

Inhalation Hazards

Inhalation of toxicologically-significant quantities of the components is unlikely when the product is used in accordance with instructions and specified protective measures (see Section #8). If the product is heated to elevated temperatures, vapors or mists of the component ethylene glycol may irritate the nose, throat, and upper respiratory system.

Symptoms Related to Overexposure

Pre-existing pulmonary diseases (e.g., bronchitis, asthma) may be aggravated by inhalation overexposure.

Delayed Effects from Long Term Overexposure

Ingestion may aggravate pre-existing conditions of the kidneys and gastrointestinal system.

Carcinogenicity

The product contains no chemicals classified as potential or demonstrated carcinogens by IARC, NTP, or OSHA.

Germ Cell Mutagenicity

The product contains no chemicals determined to be germ cell mutagens.

Reproductive Effects

In experimental animal studies, adverse reproductive effects have been reported in rats and mice following ingestion of ethylene glycol. Ingestion is an unlikely mode of occupational exposure, and adverse reproductive effects in humans from ethylene glycol have not been established.

Acute Toxicity Estimates

LD50 (oral) >2,000 mg/kg
LD50 (dermal): no data available
LC50: no data available

Interactive Effects of Components: no data available

12. Ecological Information

No ecological data is available for the product. Ecological data for the components is as follows:

Ethylene glycol

Aquatic Toxicity to Fish: LC50 = >10,000 mg/l. for 2 d. (Freshwater fish)
Aquatic Toxicity to Invertebrates: EC50 >20,000 mg/l. for 1 d. (Crustacea)
Aquatic Toxicity to Microorganisms: EC50 = 5,000 mg/l. for 1 d. (Protozoa)
Toxicity to Terrestrial Plants: LC50 = 5,500 mg/l. for 1 d. (Tomatensamen)
No data available for Aquatic Toxicity to Plants, Toxicity to Terrestrial Organisms, Persistence and Degradability, Bioaccumulation Potential, or Mobility in Soil.

Ozone Depletion Potential: This product contains no ingredients listed in the Annexes to the Montréal Protocol on Substances that Deplete the Ozone Layer.

13. Disposal Considerations

Do not discharge waste product into sanitary or storm sewers or allow it to contaminate soil. Consult applicable Federal, State/Provincial, and local regulations.

14. Transport Information

Transport is not regulated by USDOT, TDG (Canada), IATA, or IMO.

15. Regulatory Information

United States Regulatory Information

All components of this product are listed on the EPA's TSCA inventory.

SARA Hazard Classes: Acute Health Hazard; Chronic Health Hazard

SARA Section 313 Notification

This product contains these ingredient(s) in concentrations >1% (>0.1% for carcinogens) regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372:

1. Ethylene glycol (CASRN 107-21-1)

Canadian Regulatory Information

All components of this product are listed on either the Domestic Substances List (DSL) or the Nondomestic Substances List (NDSL).

WHMIS Class(es) and Division(s): D2A, D2B
Component on Ingredients Disclosure List: Ethylene glycol (CASRN 107-21-1)

This product has been classified according to the hazard criteria of the CPR and this SDS contains all of the information required by the CPR.

16. Other Information

HMIS Ratings (Legend)

Health – 1* (slight chronic hazard)
Flammability – 0 (minimal hazard)
Physical Hazard – 0 (minimal hazard)
PPE - see Note

Note: Lucas-Milhaupt, Inc. recommends use of protective eyewear and gloves (Personal Protection Index "B") as standard PPE. HMIS recommends that its ratings be used only in conjunction with a fully implemented HMIS program, and that specific PPE codes be created by the user, who is familiar with the actual conditions under which the product is used. We cannot anticipate every condition of the product's use, and it is the user's responsibility to evaluate the hazards pertinent to its specific operations, and to determine the specific PPE required.

NFPA Ratings for Product

Health - 1 Flammability - 0 Reactivity – 0

Preparation Information

Date of Preparation:
Date of Prior SDS: 20 July 2009

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Lucas-Milhaupt, Inc.