

Material Safety Data Sheet

Number: **DMN0412**

Product Name: **LMF-77™**
A liquid alkaline detergent.

Revised: 8/26/04

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Section 2 - Composition / Information on Hazardous Ingredients

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>Percent</u> | <u>Carcinogen</u> |
|---------------------|-------------------|----------------|-------------------|
| 1-Butoxy-2-propanol | 5131-66-8 | 1 - 2% | No |
| Potassium hydroxide | 1310-58-3 | 1 - 2% | No |

Section 3 - Hazards Identification

Emergency Overview: Concentrate is corrosive to all body parts, especially eyes. Diluted solutions may be irritating or corrosive depending on strength. Excessive inhalation of vapors may cause irritation. Product is water based and presents little hazard in a fire. Product has a high pH and large amounts should not be allowed into sewers (sanitary or storm) without neutralizing. A pinkish-orange liquid with a pleasant odor.

Health Hazards: Corrosive, Irritant

Physical Hazards: None

Primary Routes of Entry: Through Skin Inhalation Ingestion

Potential Health Effects:

Eyes - concentrate and strong solutions cause eye damage. Milder solutions cause irritation and redness.

Skin - prolonged contact with concentrate and strong solutions can cause skin damage and loss. There is little or no effect if rinsed off thoroughly right away. Milder solutions cause irritation only.

Swallowing - may result in damage to mucous membranes and gastrointestinal irritation.

Breathing - excessive inhalation of mist or spray can cause coughing and irritation of nose and throat.

Section 4 - First Aid Measures

Eye Contact: Immediately flush eyes with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention immediately.

Skin Contact: With concentrate and strong (1:10) solutions immediately flush exposed skin with running water for 15 minutes. Remove contaminated clothing and shoes immediately. With milder solutions remove contaminated clothing and wash exposed skin with soap and water. If irritation persists, get medical attention. Wash contaminated clothing before reuse. If spilled concentrate or solutions of 1:10 or more are allowed to remain on clothing or in shoes, considerable damage to skin could occur over a period of time.

Inhalation: Move the affected person to fresh air. If irritation persists get medical attention.

Ingestion: If the product is swallowed, do NOT induce vomiting. If the affected person is conscious, give a glass of water or milk to drink. Get medical attention immediately.

Section 5 - Fire-Fighting Measures

Flash Point: Over 150° F. (ASTM D-56 closed cup). There is no open cup flash point. Butoxypropanol vapors may collect in the air space in drums or tanks to within flammable limits. These vapors are combustible with sparks or flame at or above the flash point temperature. This does not apply to gallon jugs or five gallon pails.

Lower Explosive Limit: Not Available

Upper Explosive Limit: Not Available

Extinguishing Media: Any

Special Fire Fighting Procedures: None.

Unusual Fire And Explosion Hazards: None.

Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Small spills of a few gallons may be cleaned up with a rag or mop. Larger spills should be diked to prevent spreading and then collected into clean pails or drums.

Section 7 - Handling and Storage

Empty containers retain product residue and may be hazardous. Observe all precautions given in this data sheet.

Keep from freezing.

Do not weld or cut on or around drums or totes. Vapors in the head-space may be flammable.

Section 8 - Exposure Controls / Personal Protection

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>Percent</u> | <u>TWA(source)</u> | <u>STEL</u> | <u>Ceiling</u> |
|---------------------|-------------------|----------------|-------------------------------------|-------------|---------------------------|
| 1-Butoxy-2-propanol | 5131-66-8 | 1 - 2% | no established limits are available | | |
| Potassium hydroxide | 1310-58-3 | 1 - 2% | 2 mg/m ³ (2) | - | 2 mg/m ³ (3,4) |

(1)=OSHA (2)=NIOSH (3)=ACGIH (4)=CANADA TWA=8 hr Time Weighted Average STEL=15 minute TWA Ceiling=Instantaneous

Since LMF-77 has such a wide range of applications, varying from ones needing full protection to those requiring no protection, the user must follow OSHA regulations by evaluating the need for personal protective equipment in each job situation. We cannot cover every application here.

Ventilation: Good room ventilation. Mechanical ventilation is normally not required.

Respiratory Protection: None except when spraying overhead or using in enclosed spaces. Overhead spraying requires the use a NIOSH approved respirator with an organic vapor cartridge to avoid inhaling mist. Use in enclosed, poorly ventilated spaces requires a respirator and may require self-contained breathing apparatus. If trigger sprayer mist is a problem use a nuisance-dust mask to stop airborne droplets from being inhaled.

Gloves: Use rubber or latex gloves when handling concentrate or strong dilutions. Persons with sensitive skin or who use the product for prolonged periods may wish to use rubber or latex gloves when using any dilution.

Eye Protection: Some uses of diluted product do not require eye protection although the use of safety glasses, especially for contact lens wearers, is always suggested. Concentrate or strong (1:10) solutions require safety glasses with side shields. Overhead spraying requires at minimum goggles or a face shield, or if considerable spray will fall on the user, full head and body protection. Each job should be evaluated before use.

Other Protective Equipment: An eyewash station should be located within 10 seconds travel time of concentrate use/mixing area and where solutions of 1:10 or stronger are used. Wear an apron when hand pouring concentrate. When 1:10 or stronger solutions are used the use of aprons, boots and impervious clothing should be evaluated. Their use would be indicated if splashing of the solution is likely.

Section 9 - Physical and Chemical Properties

Boiling Point: 215° F.

Specific Gravity: 1.05

Percent Volatiles: 90%

Solubility In Water: Complete

Appearance and Odor: A pinkish-orange liquid with a pleasant odor.

Vapor Pressure: Not Available

Vapor Density: Not Available

Evaporation Rate: Same as water.

pH: concentrate 12.3 ± 0.5

Section 10 - Stability and Reactivity

Incompatibility: None

Hazardous Decomposition Products: None

Section 11 - Toxicological Information

Target Organs: None.

Section 12 - Ecological Information

When scrubbing outdoors or where run-off will enter a storm sewer, flood the cleaned area with plenty of water to dilute and reduce the pH of the run-off. Do not use more product than necessary. Do not dispose of unusable product in the environment. Be sure to comply with any applicable regulations.

Section 13 - Disposal Considerations

Waste Disposal Method: Dispose of up to 2 gallons of concentrate in the sanitary sewer with a large amount of water. Larger amounts must be neutralized to within the pH limits of your waste water treatment system.

Section 14 - Transport Information

D.O.T. Hazard Class: Not considered hazardous by D.O.T., I.M.C.O., I.A.T.A. or U.N.

Section 15 - Regulatory Information

The components of this product are on the TSCA inventory of chemical substances.

Section 16 - Other Information

NFPA: H:1 F:0 I:0 **HMIS® III:** H:2 F:0 P:0 These ratings estimates are to be used only with a fully implemented training program in the workplace. NFPA® is a mark registered by the NFPA. HMIS® is a mark registered by the NPCA.

New sheet as of this date.

The information accumulated herein is believed to be accurate but is not warranted to be. Recipients are advised to confirm in advance that the information is current, applicable, and suitable to their circumstances.