

MSDS Number – Z0488

Manufacturers Product Name: FROSTFREE™

Sid Harvey Item number – FROSTFREE

# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** FROST FREE™

**COMPANY NAME:** Lincoln Laboratory

**EMERGENCY PHONE NUMBER:** CHEM-TEL (800-255-3924)

**CAS Registry Number:** Not applicable for mixtures

**Chemical Name:** Proprietary blend of deicers and cold flow improvers

**Product Type:** Distillate fuel additive

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous Ingredients

Aromatic hydrocarbon,	CAS 64742-47-8
Ethylene glycol monomethyl ether	CAS 111-76-2
Sec-Propyl alcohol	CAS 67-63-0
Aliphatic amines	CAS 110-91-8

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## 3. HAZARDS IDENTIFICATION

WARNING: FLAMMABLE LIQUID

### POTENTIAL HEALTH EFFECTS:

**Eye Contact:** Causes irritation to the eyes.

**Skin Contact:** Frequent or prolonged contact may cause skin irritation and absorption .

**Inhalation:** High vapor/aerosol concentrations (greater than 1000 ppm) are irritating to the eyes and the respiratory tract; may cause headaches, dizziness, anesthesia, unconsciousness, and other central nervous system effects, including death.

**Ingestion:** Small amounts aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

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## 4. FIRST AID MEASURES

**Eye Contact:** Flush with water at least 15 minutes. Get medical attention if irritation develops or persists.

**Skin Contact:** Flush with large amounts of soap and water. Immediately remove and launder contaminated clothing before reuse. Discard shoes if saturated with material. Get medical attention if irritation persists.

**Inhalation:** Remove exposed person to fresh air if adverse effects are observed. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. Call for prompt medical attention.

**Ingestion:** DO NOT INDUCE VOMITING. If conscious, give 1 glass of water. Get immediate medical attention.

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## 5. FIRE FIGHTING MEASURES

Flash Point (Typical) 55 Deg F (PMCC)

Flammable Limits Not Determined

Autoignition Temperature above 500 Deg F (Approximate)

**GENERAL HAZARD:** Flammable liquid can form combustible mixtures at temperatures at or above the flashpoint. **Static discharge**, material can accumulate static charges which can cause an incendiary electrical discharge.

**FIRE FIGHTING PROCEDURES:** Use water spray to cool fire exposed surfaces and to protect personnel. Use carbon dioxide, foam, dry chemical, or water spray to extinguish fire. Avoid spraying water directly into storage containers due to danger of boilover. This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or flash back. Recommend wearing self-contained breathing apparatus.

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## **6. ACCIDENTAL RELEASE MEASURES**

Remove sources of ignition and ventilate area. Personal Protective Equipment must be worn (see Section 8). Prevent entry into sewers and waterways. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Obey relevant local, state, and federal laws and regulations.

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## **7. STORAGE AND HANDLING**

Keep container closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. Do NOT handle or store near an open flame, heat or other sources of ignition. Protect material from direct sunlight. Do NOT pressurize, cut, heat, or weld containers. Do NOT reuse empty containers without commercial cleaning or reconditioning.

Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures.

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## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**EXPOSURE CONTROLS:** The use of local exhaust ventilation is recommended to control process emissions near the source. Provide mechanical ventilation of confined spaces.

**PERSONAL PROTECTION:** For open systems where contact is likely, wear safety glasses with side shields, long sleeves, chemical resistant gloves, and hydrocarbon insoluble apron. Use NIOSH/MSHA approved full face respirator with an organic vapor cartridge if the recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

**WORKPLACE EXPOSURE GUIDELINE:** 100 ppm based on total composition

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Specific Gravity:	0.85 at 60 Deg F. (7.05 lb/gal)
Vapor Pressure:	moderate (mmHg at 68 Deg F.)
Vapor Density (air=1):	above 1
Evaporation Rate(n-Bu Acetate=1):	below 1
Boiling Point:	above 400 Deg F.(approximate)
Water Solubility:	Slight
Freezing Point:	Minus 60 Deg F. (approximate)
Appearance:	Clear liquid
Odor:	Aromatic hydrocarbon

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## 10. STABILITY AND REACTIVITY

Stability: Material is normally stable at moderately elevated temperatures and pressures.

Incompatibility: Oxidizing agents.

Polymerization: Will not occur.

Thermal Decomposition: Carbon monoxide, carbon monoxide, other unidentified organic compounds, irritating fumes, may be formed during combustion.

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## 11. TOXICOLOGICAL INFORMATION

Please refer to Section 3 for available information on potential health effects.

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## 12. ECOLOGICAL INFORMATION

No specific ecological information is available for this product. Please refer to Section 6 for information regarding accidental releases and Section 15 for regulatory information.

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## 13. DISPOSAL CONSIDERATIONS

Please refer to Sections 5, 6, and 15 for disposal and regulatory information.

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## 14. TRANSPORT INFORMATION

U.S. DOT Shipping Description: Petroleum Product, N.O.S. III UN1268 PG-2

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## 15. REGULATORY INFORMATION

This product or its components are listed in or exempt from the TSCA inventory requirements. Under the provisions of Title III, Sections 311/312 of SARA, this product would be classified: Immediate Health, Delayed Health, Fire.

This information may be subject to the provisions of the Community Right-to Know Reporting Requirements (40 CFR 370) if threshold quantity criteria are met.

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## 16. OTHER INFORMATION

### HAZARD RATING SYSTEMS:

HEALTH	2	<b>KEY</b>
FIRE	3	4=Severe
REACTIVITY	0	3=Serioius
		2=Moderate
(NFPA/HMIS)		1=Slight
		0=Minimal

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