I. PROTECTION AND PRECAUTIONS

VENTILATION
Use only with ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air. No smoking, or use of flame or other ignition sources.

RESPIRATORY PROTECTION
Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

PROTECTIVE GLOVES
Use chemical-resistant gloves, if needed, to avoid prolonged or repeated skin contact.

EYE PROTECTION
Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT
Use Chemical-resistant apron or other impervious clothing, if needed, to avoid contaminating regular clothing, which could result in prolonged or repeated skin contact.

WORK PRACTICES / ENGINEERING CONTROLS
Keep containers closed when not in use. Do not store near heat, sparks, flame or strong oxidants. To prevent fire or explosion risk from static accumulation and discharge, effectively ground product transfer system in accordance with the National Fire Protection Association standard for petroleum products.

J. TRANSPORTATION INFORMATION

TRANSPORTATION INCIDENT INFORMATION
For further information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook for Hazards Materials Incidents, DOT P 658.3.

DOT IDENTIFICATION NUMBER
UN 1255

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REVISION DATED MARCH 1995

LAMPLIGHT FARMS
ULTRA-PURE LAMP OIL
MATERIAL SAFETY DATA SHEET

LAMPLIGHT FARMS
4800 NORTH LILLY RD MENOMONEE FALLS, WI 53051

A. IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME
ULTRA-PURE LAMP OIL

PRODUCT CATEGORY
Petroleum Solvent

PRODUCT APPEARANCE AND ODOR
Clear water-white liquid
Faint petroleum hydrocarbon odor

CALL YOUR LOCAL POISON CENTER OR:

REGULAR TELEPHONE NO. 1-262-788-9520
EMERGENCY TELEPHONE NO. 1-800-645-5267

B. COMPONENTS AND HAZARD INFORMATION

COMPONENTS

This product contains approximately 98 mass% linear paraffins, primarily C12-18.0
All components of this product are listed on the U.S. TSCA Inventory.
See Section E for Health and Hazard Information.
See Section H for additional Environmental Information.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)
Health Flammability Reactivity

EXPOSURE LIMIT FOR TOTAL PRODUCT
8-hour time-weighted average for an 8-hour workday

C. PRIMARY ROUTES OF ENTRY AND EMERGENCY, AND FIRST AID PROCEDURES

EYE CONTACT
If splashed into the eyes, flush with clear water for 15 minutes or until irritation subsides.
If irritation persists, call a physician.

SKIN
In case of contact, remove any contaminated clothing and wash skin with soap and water.
Lather or dry-Clean clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

INHALATION
If overcome by vapor, remove from exposure and call a physician immediately.
If breathing is irregular or has stopped, start resuscitation, administer oxygen, if available.

INGESTION
IF INGESTED, DO NOT INDUCE VOMITING; CALL A PHYSICIAN IMMEDIATELY.
D. FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (MINIMUM)
Greater than 83.3 °C (182°F)
ASTM D 52, Pensky-Martens Closed Cup

AUTOIGNITION TEMPERATURE
Approximately 210°C (410°F)
ASTM E 693

NOTE: The autoignition temperature of this product is relatively low and is reached during laboratory distillation by ASTM Method D 693. Therefore, if the procedure is interrupted, the distillation flask must be covered before the contents are exposed to air.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION
Health Flammability Reactivity
1 1 0
Recommended by supplier.

HANDLING PRECAUTIONS
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 explode.

Keep product away from ignition sources, such as heat, sparks, pilot lights, static electricity, and open flames.

FLAMMABLE OR EXPLOSIVE LIMITS (approximate percent by volume in air)
Lower Flammable Limit 1.4%
Upper Flammable Limit 8.9%

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES
Foam, water spray (foam), dry chemical, carbon dioxide and dry powdered extinguishing agents may be suitable for extinguishing fires involving the type of product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.


Use water spray, dry chemical, foam or carbon dioxide to extinguish fire. Use dry chemical or dry powdered extinguishing agents if material is exposed to fire. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for personnel attempting to stop a leak. Water spray may also be used to flush spills away from the area. Keep a distance of two feet from the release area. Use high-volume, high-velocity breathing equipment for enclosed or confined spaces or as otherwise needed.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS
Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products in the case of incomplete combustion.

"EMPTY" CONTAINER WARNING
"Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION: THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bled and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

F. HEALTH AND HAZARD INFORMATION

VARIABILITY AMONG INDIVIDUALS
Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids vapors, mists or fumes should be minimized.

EFFECTS OF CHRONIC EXPOSURE (long-term ingestion/dermal absorption)
High vapor concentrations (greater than approximately 700 ppm, attainable at elevated temperatures well above ambient) are irritating to the eyes and the respiratory tract, and may cause headache, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

NATURE OF HAZARD AND TOXICITY INFORMATION
Prolonged or repeated skin contact with this product tends to remove skin oils, possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria.

Product contacting the eyes may cause eye irritation.

This product has a low order or acute oral and dermal toxicity, but minute amounts ingested or contacted may cause mild to severe percutaneous injury and possibly death.

This product is judged to have an acute oral LD50 (rat) greater than 5 g/kg of body weight, and an acute dermal LD50 (rabbit) greater than 3.16 g/kg of body weight.

PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE
Petroleum Solvents/Petroleum Hydrcarbons - Skin contact may aggravate an existing dermatitis.

F. PHYSICAL DATA

The following data are approximate to typical values and should not be used for precise design purposes.

BOILING RANGE
225-243°C (437-469°F)

VAPOUR PRESSURE
0.2 mm Hg @ 30°C (86°F)
ASTM D 2879

SPECIFIC GRAVITY
1.076

VAPOUR DENSITY (AIR = 1)
8.4

MOLECULAR WEIGHT
189

PERCENT VOLATILE BY VOLUME
100 @ 1 atm. and 25°C (77°F)

EVAPORATION RATE @ 1 ATM. AND 25°C
(77°F) (n-BUTYL/ACETONE = 1)
LESS THAN 0.01

SOLUBILITY IN WATER @ 1 ATM.
Negligible, 0.0091%

PH
Essentially neutral

POUR, ONGEALING OR MELTING POINT
Gour Point by ASTM D 97

VISCOSITY
1.37 CST, @ 25°C (77°F) ASTM D 445

G. REACTIVITY

This product is stable and will not react violently with water. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, etc., as this presents a serious explosion hazard.

H. ENVIRONMENTAL INFORMATION

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Shut off and eliminate all ignition sources. Keep people away. Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Keep product out of sewers and watercourses by digging or impounding. Advise authorities if product enters or may enter sewers, manholes, or watercourses.

Ensure conformity with applicable governmental regulations. Continue to observe precautions for volatile, combustible vapors from absorbed material.

THE FOLLOWING INFORMATION MAY BE USEFUL IN COMPLYING WITH VARIOUS STATE AND FEDERAL LAWS AND REGULATIONS UNDER VARIOUS ENVIRONMENTAL STATUTES:

REPORTABLE QUANTITY (RQ), EPA REGULATION 40 CFR 352 (CERCLA Section 102)
No RQ for product or any constituent greater than 1% or 0.1% (carcinogen).

THRESHOLD PLANNING QUANTITY (TPQ), EPA REGULATION 40 CFR 355
No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).