

DINE-AGLOW® DIVISION
LE-JO ENTERPRISES, INC.

SAFETY LAMP PROPRIETARY FUEL
Revised Date: 01/01/07

MATERIAL SAFETY DATA SHEET

LE-JO ENTERPRISES, INC.

765 Pike Springs Road, Phoenixville, PA 19460

A. IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME

Safety Lamp Proprietary Fuel

PRODUCT CODE

Dine-Aglow® Safety Lamp
CAS #90622-46-1

CHEMICAL FAMILY

Normal Paraffin

PRODUCT APPEARANCE AND ODOR

Clear, water-white oily liquid with mild hydrocarbon odor

CARCINOGENICITY: NTP: NO IARC: NO OSHA: NO

This material by OSHA and IARC Definition is severely hydrotreated.

B. COMPONENTS AND HAZARD INFORMATION

COMPONENTS

Predominantly C14 Normal Paraffin

APPROXIMATE CONCENTRATION

100%

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)

| Health | Flammability | Reactivity | BASIS |
|--------|--------------|------------|-----------------------------|
| 1 | 1 | 0 | Recommended by Manufacturer |

EXPOSURE LIMIT FOR TOTAL PRODUCT

300ppm (2400 mg/m³)
For an 8-hour workday

BASIS
Recommended by Manufacturer

C. EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT

If splashed into the eyes, flush with clear water for 15 minutes while holding eyelids open or until irritation subsides. If irritation persists, call a physician.

SKIN CONTACT

In case of skin contact, remove any contaminated clothing and wash skin thoroughly with soap and water.

INHALATION

If overcome by concentrated vapor, remove from exposure into fresh air and call a physician immediately. If breathing is irregular or has stopped, start resuscitation, administer oxygen.

INGESTION

If ingested DO NOT induce vomiting; call a physician immediately.

D. FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT (MINIMUM)

235° F Cleveland Open Cup ASTM D92
250° F Tag closed tester ASTM D56

AUTOIGNITION TEMPRATURE

Approximately 420°F (216° C)
ASTM D2155

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

HAZARD CLASSIFICATION

| Health | Flammability | Reactivity | BASIS |
|--------|--------------|------------|-----------------------------|
| 1 | 1 | 0 | Recommended by Manufacturer |

HANDLING PRECAUTIONS

Keep product away from heat, sparks, pilot lights, static electricity, and open flame.

FLAMMABLE OR EXPLOSIVE LIMITS (APPROXIMATE PERCENT BY VOLUME IN AIR)

Estimated values: Lower Flammable Limit 0.6% Upper Flammable Limit 7%

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES

Foam, water, spray (fog), dry chemical, carbon dioxide, and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fire involving this 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.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Guide on Hazardous Materials," Ninth Edition (1987):

Use dry chemical, foam, or carbon dioxide. Water may be ineffective, but water should be used to keep fire-exposed containers cool. If a leak or spill has ignited, use water spray to disperse the vapors and to protect persons attempting to stop a leak. Water spray may be used to flush spills away from exposures. Minimize breathing gases, vapors, fumes, or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

NOTE: The inclusion of the phrase "water may be ineffective" is to indicate that although water may be used to cool and protect exposed material, water may not extinguish the fire unless used under favorable conditions by experienced fire fighters trained in fighting all types of combustible liquid fires.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS

Fumes, smoke, soot, carbon monoxide, 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, 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 bunged, and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with government regulations.

E. 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 OVEREXPOSURE (Signs and symptoms of exposure)

High vapor concentrations (greater than approximately 700 ppm, attainable at elevated temperatures well above ambient) are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic, and may have other central nervous system effects.

Meets requirements of the Federal Drug Administration (FDA) procedure 178.3620 (b) and 178.3910 (a) (4)

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 irritation.

Reports of animal studies using both sexes of several species have shown that kidney damage can occur in male rats after prolonged and repeated inhalation exposures to light hydrocarbon vapors of the general type present in this product. While the damage is of a low order of severity in animals, the implications of these results for humans have not yet been determined.

Product has a low order of acute oral and dermal toxicity, but minute amounts aspirated into the lungs during ingestion may cause mild to severe pulmonary 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 2 g/kg of body weight.

F. PHYSICAL DATA

The following data are approximate or typical values at sea level and should not be used for precise design purposes.

BOILING RANGE

Approximately 254-283° C (490°-542° F)
ASTM-D92

VAPOR PRESSURE

Less than 0.05 mm Hg @ 68° F (20° C)
ASTM D2879

SPECIFIC GRAVITY

(15.6° C/15.6° C) (60° F/60° F)
0.773

VAPOR DENSITY

(AIR=1)
Greater than 7-8

MOLECULAR WEIGHT

205

PERCENT VOLATILE BY VOLUME

Not available or relevant information not found

pH

Essentially neutral

EVAPORATION RATE

Not available or relevant information not found

VISCOSITY

2.5 – 2.7 cSt @ 40° C

POUR, CONGEALING, OR MELTING POINT

48°/50° F

SOLUBILITY IN WATER

@1 ATM & 25° C Negligible

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, or calcium hypochlorite.

H. SPILL OR LEAK PROCEDURES**(ENVIRONMENTAL INFORMATION)**

Meets requirements of FDA procedure 178.3620(b) and 178.3910 (a) (4)

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 diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas. Assure conformity with applicable government regulations. Continue to observe precautions for volatile, combustible vapors from absorbed material.

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. Use explosion-proof equipment. No smoking or open lights.

RESPIRATORY PROTECTION

Use supplied-air respiratory protection in confined or enclosed spaces.

PROTECTIVE GLOVES

Use chemical-resistant gloves 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, when indicated, to avoid contaminating regular clothing, which could result in, prolonged or repeated skin contact.

WORK PRACTICES/ENGINEERING CONTROLS

Keep containers and storage containers closed when not in use. Do not store near heat, sparks, flames, 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.

PERSONAL HYGIENE

Minimize breathing vapor or mist. Avoid prolonged or repeated contact with skin. Remove contaminated clothing, launder or dry-clean before reuse. Remove contaminated shoes and thoroughly clean and dry before reuse. Cleanse skin thoroughly after contact, before breaks and meals and at end of work period. Product is readily removed from skin by waterless hand cleansers followed by washing thoroughly with soap and water.

J. TRANSPORTATION INFORMATION**TRANSPORTATION INCIDENT INFORMATION**

For information relative to spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook DOT P 5800.3. This product contains no substances above EPA reporting requirements specified by SARA title III, Section 313; Section 302 and Section 311/312.

NATIONAL MOTORFREIGHT CLASSIFICATION: 155250

U.S. D.O.T.: NOT HAZARDOUS BY D.O.T. REGULATIONS I.D. UN1255

SPECIAL LABELING INFORMATION

CALIFORNIA PROP. 65: THIS PRODUCT IS SEVERLY HYDROFINED IN COMPLIANCE WITH OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910-1200, IT DOES NOT REQUIRE HAZARD LABELING.

SARA TITLE III: NONE

The information and recommendations contained herein are, to the best of Le-Jo's knowledge and belief, accurate and reliable as of the date issued. Le-Jo does not warrant or guarantee their accuracy or reliability, and Le-Jo shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendation are offered for the user's consideration and examination and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use.

The Hazardous Material Identification System (HMIS) and National Fire Protection Association (NFPA) ratings have been included by Le-Jo Enterprises, Inc. in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of the rating systems, together with Le-Jo's interpretation of the available data.

FOR ADDITIONAL INFORMATION ON HEALTH EFFECTS & OTHER PRODUCT INFO., CONTACT:

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