

008 12/07/06 DRAKEOL LT MINERAL OIL N.F.

PRODUCT NAME: DRAKEOL LT MINERAL OIL N.F.
 MSDS NUMBER: PE1110
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Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Penreco DRAKEOL LT MINERAL OIL N.F.
 Synonyms: Penreco Drakeol 100G, 100
 Penreco Drakeol 5, 5A., 6, 6LP, 6VR, 7, 7A, 7PG,
 8, 9, 10, 10B, 10C, 13, 15, GD-LP, GD-Med., 70HP,
 75HP, 90HP, 100HP
 Penetec and Drakesol 260-AT
 Draketex 50
 Intended Use: General White Oil

Responsible Party:
 Penreco
 8701 New Trails Dr. Suite 175
 The Woodlands, TX 77381

Emergency Overview

24 Hour Emergency Telephone Numbers:
 Spill, Leak, Fire or Accident Call CHEMTREC:
 North America: (800) 424-9300
 Others: (703) 527-3887 (collect)

California Poison Control System: (800) 356-3129

Health Hazards/Precautionary Measures: Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not taste or swallow. Wash thoroughly after handling.

Physical Hazards/Precautionary Measures: Keep away from all sources of ignition.

Appearance: Transparent Water-white
 Physical Form: Liquid
 Odor: None

NFPA 704 Hazard Class
 Health: 0 Flammability: 1 Instability: 0
 Legend: 0 (Minimal), 1 (Slight), 2 (Moderate), 3 (Serious), 4 (Severe)

2. COMPOSITION / INFORMATION ON INGREDIENTS

NON-HAZARDOUS COMPONENTS

| Component | Concentration (wt %) | ACGIH: | OSHA: | NIOSH: |
|----------------------------------|----------------------|---------------|-------------|-----------------|
| White Mineral Oil | 100 | 5 mg/m3 TWA | 5 mg/m3 TWA | 2500 mg/m3 IDLH |
| 8042-47-5 | | 10 mg/m3 STEL | | |
| Other: As Oil Mist, If Generated | | | | |

Note: State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

1%=10,000 PPM.
NE=Not Established

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye: Not known to be an eye irritant.

Skin: Not known to be a skin irritant. No harmful effects from skin absorption have been reported.

Inhalation (Breathing): Expected to have a low degree of toxicity by inhalation.

ingestion (Swallowing): No harmful effects reported from ingestion.
ASPIRATION HAZARD - This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage.

Signs and Symptoms: Effects of overexposure may include irritation of the respiratory tract, irritation of the digestive tract, diarrhea.

Cancer: No evidence of cancer has been demonstrated in several well conducted animal studies.

Target Organs: No data available for this material.

Reproductive/Developmental: No data available for this material.

4. FIRST AID MEASURES

Eye: If irritation or redness develops from exposure, flush eyes with clean water. If symptoms persist, seek medical attention.

Skin: First aid is not normally required. However, it is good practice to wash any chemical from the skin.

Inhalation (Breathing): First aid is not normally required. If breathing difficulties develop, move victim away from source of exposure and into fresh air. Seek immediate medical attention.

Ingestion (Swallowing): Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention.

Notes to Physician: Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

5. FIRE-FIGHTING MEASURES

Flammable Properties:

| | |
|---------------------------|------------------------------------|
| Flash Point: | > 280 deg F /138 deg C |
| Test Method: | Cleveland Open Cup (COC), ASTM D92 |
| OSHA Flammability Class: | Not applicable |
| LEL (vol % in air): | No data |
| UEL (vol % in air): | No data |
| Autoignition Temperature: | No data |

Unusual Fire & Explosion Hazards: This material may burn, but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire. Vapors are heavier than air and can accumulate in low areas.

Extinguishing Media: Dry chemical, carbon dioxide, foam, or water spray is recommended. Water or foam may cause frothing of materials heated above 212 deg F. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Fire Fighting Instructions: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk.

Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

6. ACCIDENTAL RELEASE MEASURES

This material may burn, but will not ignite readily. Keep all sources of ignition away from spill/release.

Stay upwind and away from spill/release. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8).

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Spilled material may be absorbed into an appropriate absorbent material. Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended.

7. HANDLING AND STORAGE

Handling: Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Section 8).

Do not wear contaminated clothing or shoes. Use good personal hygiene practices.

Empty containers retain residue and may 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. Empty drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat and all sources of ignition. Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits additional engineering controls may be required.

Personal Protective Equipment (PPE):

Respiratory: A NIOSH certified air purifying respirator with a Type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits.

Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a NIOSH approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode if there is potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z882 requirements must be followed whenever workplace conditions warrant a respirator's use.

Skin: Not required based on the hazards of the material. However, it is considered good practice to wear gloves when handling chemicals.

Eye/Face: While contact with this material is not expected to cause irritation, the use of approved eye protection to safeguard

Other Protective Equipment: A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

9. PHYSICAL AND CHEMICAL PROPERTIES

Note: Unless otherwise stated, values are determined at 20 deg C (68 deg F) and 760 mm Hg (1 atm).

| | |
|--|------------------------------------|
| Appearance: | Transparent Water-white |
| Physical Form: | Liquid |
| Odor: | None |
| Odor Threshold: | No data |
| PH: | Not applicable |
| Vapor Pressure (mm Hg): | < 0.1 |
| Vapor Density (air=1): | >1 |
| Boiling Point/Range: | > 520 deg F / 271 deg C |
| Melting/Freezing Point: | No data |
| Solubility in Water: | Negligible |
| Partition Coefficient (n-octanol/water) (Kow): | No data |
| Specific Gravity: | 0.81-0.87@ 60 deg F (15.6 deg C) |
| Evaporation Rate (nBuAc=1): | <1 |
| Flash Point | > 280 deg F /138 deg C |
| Test Method: | Cleveland Open Cup (COC), ASTM D92 |
| LEL (vol % in air): | No data |
| UEL (vol % in air): | No data |
| Autoignition Temperature: | No data |
| Decomposition Temperature: | No data |

10. STABILITY AND REACTIVITY

Stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. Conditions to Avoid: Avoid high temperatures and all sources of ignition (see Sections 5 and 7).

Materials to Avoid (Incompatible Materials): strong oxidizing agents.

Hazardous Decomposition Products: Combustion can yield carbon dioxide, carbon monoxide and other oxides.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Chronic Data:

No definitive information available on carcinogenicity, mutagenicity, target organ, or developmental toxicity.

12. ECOLOGICAL INFORMATION

Not evaluated.

13. DISPOSAL CONSIDERATIONS

This material, if discarded as produced, is not a RCRA listed hazardous waste. However, it should be fully evaluated for hazardous waste characteristics prior to disposal (40 CFR 261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waste materials, consult state and local regulations regarding the proper disposal of this material.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)

Proper Shipping Name: Not classified as hazardous

Note: Material is unregulated unless shipped by land in a packaging having a capacity of 3,500 gallons or more. Then the provisions of 49 CFR, Part 130 apply.

International Maritime Dangerous Goods (IMDG)

Shipping Description: Not regulated

International Civil Aviation Org. / International Air Transport Assoc.
(ICAO/IATA)

Shipping Description: Not regulated

15. REGULATORY INFORMATION

U.S. Regulations:

CERCLA/SARA - Section 311/312 Title III Hazard Categories)

Acute Health: No

Chronic Health: No

Fire Hazard: No

Pressure Hazard: No

Reactive Hazard: No

CERCLA/SARA - Section 313 and 40 CFR 372:

This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372:

None Known

EPA (CERCLA) Reportable Quantity (in pounds):

None Known

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):

This material contains the following chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372:

None Known

California Proposition 65:

Warning: This material may contain detectable quantities of the following chemicals, known to the State of California to cause cancer, birth defects or other reproductive harm, and which may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

None Known

Carcinogen Identification:

This material has not been identified as a carcinogen by NTP, IARC, or OSHA. See Section 11 for carcinogenicity information of individual components, if any.

TSCA:

All components are listed on the TSCA inventory.

Canadian Regulations: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Domestic Substances List: Listed

WHMIS Hazard Class:

Not Regulated

International Inventories:

Australia (AICS)

Canada (DSL)

China

Europe (EINECS)

Japan (ENCS)

Korea (ECL)

Philippines (PICCS)

U.S. Export Control Classification Number: EAR99

----- FOR ADDITIONAL INFORMATION -----
CONTACT: MSDS COORDINATOR UNIVAR USA INC.
DURING BUSINESS HOURS, PACIFIC TIME (425)889-3400
----- NOTICE -----

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