



# MATERIAL SAFETY DATA SHEET

## Penreco® Drakeol® Mineral Oil - USP Grades

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Penreco® Drakeol® Mineral Oil - USP Grades  
**Synonyms:** Penreco® Drakeol® 19  
Penreco® Drakeol® 21  
Penreco® Drakeol® 25  
Penreco® Drakeol® 32  
Penreco® Drakeol® 33  
Penreco® Drakeol® 34  
Penreco® Drakeol® 35  
Penreco® Drakeol® 350  
Penreco® Drakeol® 35G  
Penreco® Drakeol® 400  
Penreco® Drakeol® Supreme  
Penreco® Drakeol® 600  
Penreco® Drakeol® 600T

**Chemical Family:** Hydrocarbon

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

**Customer Service:** 800-245-3952  
www.penreco.com

**Technical Information:** 800-245-3952

#### 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) 356-3219

**Health Hazards/Precautionary Measures:** None anticipated.

**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 (Least)  
**Flammability:** 1 (Slight)  
**Instability:** 0 (Least)

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

NON-HAZARDOUS COMPONENTS					
Component / CAS No:	Percent (%)	ACGIH:	OSHA:	NIOSH:	Other:
White Mineral Oil 8042-47-5	100	5 mg/m <sup>3</sup> TWA 10 mg/m <sup>3</sup> STEL	5 mg/m <sup>3</sup> TWA	2500 mg/m <sup>3</sup> IDLH	As Oil Mist, If Generated  5 mg/m <sup>3</sup> NOHSC TWA

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):** No harmful effects reported.

**Ingestion (Swallowing):** No harmful effects reported from ingestion.

**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.

**Developmental:** No data available for this material.

**Pre-Existing Medical Conditions:** None known.

## 4. FIRST AID MEASURES

**Eye:** If irritation or redness develops, move victim away from exposure and into fresh air. 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):** First aid is not normally required; however, if swallowed and symptoms develop, 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:

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<b>Flash Point:</b>	> 370°F / 188°C
<b>Test Method:</b>	Cleveland Open Cup (COC), ASTM D92
<b>OSHA Flammability Class:</b>	Not applicable
<b>LEL%:</b>	No data
<b>UEL%:</b>	No data
<b>Autoignition Temperature:</b>	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°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 Sections 2 and 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 (see Section 2), 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 (see Section 2).

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 Z88.2 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 against potential eye contact is considered good practice.

**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°C (68°F) and 760 mm Hg (1 atm).

<b>Appearance:</b>	Transparent Water-white
<b>Physical Form:</b>	Liquid
<b>Odor:</b>	None
<b>Odor Threshold:</b>	No data
<b>pH:</b>	Not applicable
<b>Vapor Pressure (mm Hg):</b>	< 0.1
<b>Vapor Density (air=1):</b>	No data
<b>Boiling Point:</b>	> 590°F / 310°C
<b>Pour Point:</b>	10°F / -12°C
<b>Solubility in Water:</b>	Insoluble
<b>Solubility in Other Solvents:</b>	Soluble in Hydrocarbons
<b>Partition Coefficient (n-octanol/water) (Kow):</b>	No data
<b>Specific Gravity:</b>	0.86 - 0.88 @ 60/60°F (15.6°C)
<b>Evaporation Rate (nBuAc=1):</b>	No data
<b>Flash Point:</b>	> 370°F / 188°C
<b>Test Method:</b>	Cleveland Open Cup (COC), ASTM D92
<b>LEL%:</b>	No data
<b>UEL%:</b>	No data
<b>Autoignition Temperature:</b>	No data
<b>Decomposition Temperature:</b>	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 all possible sources of ignition (see Sections 5 and 7).

**Materials to Avoid (Incompatible Materials):** Avoid contact with strong oxidizing agents.

**Hazardous Decomposition Products:** Combustion can yield carbon oxides.

**Hazardous Polymerization:** Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

### Chronic Data:

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

### Acute Data:

#### **White Mineral Oil - CAS: 8042-47-5**

*Dermal LD50* = >2 g/kg

*LC50* = >5 mg/l (rat)

*Oral LD50* = >5 g/kg (rat)

## 12. ECOLOGICAL INFORMATION

Not evaluated at this time.

## 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

### DOT

**Shipping Description:** Not Regulated

**Note:** Material is unregulated unless shipped by land in a packaging having a capacity of 3500 gallons or more. Then the provisions of 49 CFR, Part 130 apply.

### IMDG

**Shipping Description:** Not regulated

### ICAO/IATA

**Shipping Description:** Not regulated

## 15. REGULATORY INFORMATION

### U.S. Regulations:

#### EPA SARA 311/312 (Title III Hazard Categories)

<b>Acute Health:</b>	No
<b>Chronic Health:</b>	No
<b>Fire Hazard:</b>	No
<b>Pressure Hazard:</b>	No
<b>Reactive Hazard:</b>	No

#### 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 contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are 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.

**TSCA:**

All components are listed on the TSCA inventory.

**International Regulations:**

**International Inventories:**

All components are listed on the following inventories:

- Australia (AICS)
- Canada (DSL)
- China
- Europe (EINECS)
- Japan (ENCS)
- Korea (ECL)
- Philippines (PICCS)

## 16. OTHER INFORMATION

<b>Issue Date:</b>	21-Nov-2005
<b>Previous Issue Date:</b>	09-Apr-2003
<b>Revised Sections or Basis for Revision:</b>	Periodic review and update
<b>MSDS Code:</b>	776507

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