


# Material Safety Data Sheet

MSDS No.  
AP0474

## DUOPAC<sup>®</sup> OIL 90

<b>HMIS</b>	<b>IMPORTANT: Read this MSDS before handling and disposing of this product and pass this information on to employees, customers, and users of this product.</b>  This product is covered by the OSHA Hazard Communication Standard and this document has been prepared in accord with the MSDS requirements of the rule.	<b>Protective Equipment</b>
Health Hazard 0		
Fire Hazard 1		
Reactivity 0		
* = Chronic Health Hazard		

### SECTION 1: IDENTIFICATION

Trade Name	DUOpac <sup>®</sup> Oil 90	MSDS No.	AP0474
Product Number	1639416410	Revision Date	7/3/96
CAS Number	8042-47-5		
Synonyms	Technical-grade Light White Mineral Oil; USDA-registered "H-1" Lubricant for Incidental Food Contact in Food Processing Plants; High-quality Packaging Oil; ARCOpac <sup>®</sup> Oil 90 (former name).		
Generic Name	White Mineral Oil (Petroleum)		
Chemical Family	Petroleum Hydrocarbons		
Manufacturer	Lyondell Lubricants 12000 Lawndale Avenue P.O. Box 2451 Houston, Texas 77252-2451	Telephone Numbers	800/424-9300 CHEMTREC 800/313-7645 Company Hot Line 800/447-4572 Customer Inquiries 800/525-4692 MSDS Requests

### SECTION 2: COMPOSITION

Component Name	CAS Number	Carcinogenic Listings	Concentration Wt%
WHITE MINERAL OIL (PETROLEUM)	8042-47-5	Not applicable	EQ 100

### SECTION 3: HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Signal Word	Not applicable.	Color	Colorless.
Physical State	Liquid.	Odor	Odorless.
Physical and Health Hazards	Not expected to present a hazard under anticipated conditions of use! Not intended for human ingestion! If swallowed, DO NOT INDUCE VOMITING since aspiration into the lungs may cause lipid pneumonia! Potential slipping hazard on smooth, hard walking area.		
Environmental Hazards	Ecological effects testing has not been conducted on this product. If it were spilled, no significant detrimental effects would be expected to occur.		

#### POTENTIAL HEALTH EFFECTS

Routes of Exposure      Skin and eye contact.

#### Signs and Symptoms of Acute Exposure

- Inhalation      No significant adverse health effects are expected to occur upon short-term exposure.

• <i>Eye Contact</i>	No eye irritation is expected to occur from short-term exposure. This is based upon animal test results for similar products with higher and lower viscosities.
• <i>Skin Contact</i>	No skin irritation is expected to occur upon short-term exposure. This is based upon animal test results for similar products with higher and lower viscosities.
• <i>Ingestion</i>	If swallowed, no significant adverse health effects are expected to occur from short-term exposure. However, ingestion may be irritating to the digestive tract and might cause a laxative effect. Aspiration into the lungs might cause lipid pneumonia.
<b>Chronic Health Effects Summary</b>	No significant signs or symptoms indicative of any adverse health effects are expected to occur.
<b>Conditions Aggravated by Exposure</b>	None known.
<b>Target Organs</b>	Lungs.
<b>Carcinogenic Potential</b>	Please refer to Section 2 for the identification of components, if any, which have been identified as having carcinogenic potential.

#### SECTION 4: FIRST AID MEASURES

<b>Inhalation</b>	Vaporization is not expected at ambient temperatures. This material is not expected to be an inhalation problem under anticipated conditions of use. In case of overexposure, move the person to fresh air.
<b>Eye Contact</b>	Flush eyes with clean, low-pressure water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If pain or redness persists after flushing, obtain medical attention.
<b>Skin Contact</b>	Remove by wiping the oil off the skin; and then, wash skin thoroughly with plenty of mild soap and water. Remove contaminated clothing and thoroughly clean it before reuse. Discard contaminated leather gloves and shoes.
<b>Ingestion</b>	Swallowing less than a half-cup is not expected to cause harm. If ingested, DO NOT INDUCE VOMITING! If irritation, discomfort, or vomiting occurs, immediately obtain medical attention.
<b>Notes to Physician</b>	Treat symptomatically.

#### SECTION 5: FIRE FIGHTING MEASURES

##### FLAMMABLE PROPERTIES

<b>Flammability Classification</b>	Slightly Combustible! OSHA/NFPA Class-IIIB Combustible Liquid.
<b>Flash Point/Method</b>	AP 365°F (185°C) by ASTM D-92.
<b>Flammable Limits %</b>	LEL: AP 1.0 UEL: AP 7.0 (At or approaching the Flash Point.)
<b>Auto-Ignition Temperature</b>	AP 680°F (360°C) (Estimated)
<b>Hazardous Combustion Products</b>	Burning or excessive heating may produce smoke, Carbon Monoxide, Carbon Dioxide, and possibly other harmful gases/vapors.
<b>Special Properties</b>	When heated above its flash point temperature, this material will release flammable vapors which, if exposed to an ignition source, can burn in the open or be explosive in confined spaces. Mists or sprays may be flammable at temperatures below the flash point.

##### EXTINGUISHING MEDIA

SMALL FIRE: Use dry chemicals, Carbon Dioxide (CO<sub>2</sub>), foam, water fog, or inert gas (Halon or Nitrogen). LARGE FIRE: Use water fog, waterspray, or foam. Foam and water are effective but may cause frothing. NEVER use a water jet because it may spread the fire to a larger area.

**FIRE FIGHTING INSTRUCTIONS**

For fires involving this material, do not enter any enclosed or confined fire space without proper protective clothing and respiratory protective equipment. This may include supplied air or a NIOSH/MSHA-approved self-contained breathing apparatus (SCBA) to protect against the hazardous effects of combustion products and/or Oxygen deficiencies. Cool tanks and containers exposed to fire with water. Burning liquid will float on water. Notify the appropriate authorities if liquid(s) enter sewers or waterways.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****Small Spills**

Contain spill and prevent it from entering all bodies of water, if possible. Safely stop flow of spill. Evacuate non-essential personnel from immediate area due to slipping hazard. Maximize product recovery for reuse or recycling. Absorb spill with inert material (e.g., dry sand, earth, or other non-combustible absorbents) and place in a chemical waste container for later disposal. In urban areas, cleanup spill as soon as possible; in natural environments, cleanup on advice from ecologists. This material will float on water. Absorbent pads and similar materials can be used. The spilled material and any soil or water which it has contacted may be hazardous to animal and/or aquatic life. Comply with all laws and regulations.

**Large Spills**

Secure the area and control access. Verify that responders are properly HAZWOPER-trained and wearing appropriate protective clothing/equipment, including organic respirators or supplied air. Dike far ahead of a liquid spill to ensure complete collection. Pick up free liquid for recycle and/or disposal if it can be accomplished safely. All spills into U.S. navigable waterways need to be reported to the National Response Center (800/424-8802).

**SECTION 7: HANDLING and STORAGE****Handling**

Remove spillage immediately from hard, smooth walking areas. Avoid oxidizing agents. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated breathing of mist. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Prevent contact with food, chewing, or smoking materials. Do not take internally.

**Storage**

Keep container tightly closed. Keep it in a dry, cool, well-ventilated place. Combustible materials should be stored away from extreme heat, radiation sources, and strong oxidizing agents. DO NOT puncture, incinerate, or store containers at temperatures above 120°F (49°C) or in direct sunlight.

Store and handle so as to prevent contamination from any source, especially when this material is to be used in applications covered by Food and Drug Administration regulations at 21 CFR 178.3620(b)(2). To avoid product degradation, water contamination should be avoided and minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures (GT 200°F.) should be minimized. Product degradation might increase health hazard risks.

**SECTION 8: EXPOSURE CONTROLS and PERSONAL PROTECTION****ENGINEERING CONTROLS**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the pertinent exposure limits (see below.). Ensure that an eyewash station and safety shower are near to the work-station location.

**PERSONAL PROTECTIVE EQUIPMENT**

• *Protective Equipment*



- **Eye Protection** Safety glasses should be adequate protection under most conditions of use. Wear goggles and/or face shield if splashing or spraying is likely, especially if material is heated above 125°F (or 51°C). Have suitable eye wash water available.
- **Skin Protection**
  - **Hands** No special skin protection other than good personal hygiene practice is recommended under anticipated conditions of use. Wash hands with plenty of mild soap and water before eating, drinking, smoking, using toilet facilities, or leaving work.
  - **Body** If conditions (splashing or spraying) present potential for exposure, clean and impervious protective clothing (Neoprene or Tyvek) such as long sleeves, apron, or lab coat should be worn. When handling heated material, also be sure to wear heat-resistant gloves and boots. If significant contact occurs, promptly take a shower. Remove oil-soaked clothing as soon as possible and launder thoroughly before reuse.
- **Respiratory Protection** None is needed under anticipated use conditions with adequate ventilation. If exposure approaches or exceeds the occupational exposure limits shown below, wear proper NIOSH/MSHA-approved vapor control respiratory equipment.
- **General Comments** Since specific exposure standards/control limits have not been established for this product, the "Oil Mist, Mineral" exposure limits shown below are suggested as minimum control guidelines.

**EXPOSURE GUIDELINES**

Substance	Source	Date	Type	Value	Time
OIL MIST, MINERAL	OSHA	1989	PEL	5 mg/M3	8 Hours
OIL MIST, SEVERELY-REFINED MINERAL	ACGIH	1996	TLV	5 mg/M3	8 Hours

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Physical State	Liquid.		
Color	Colorless.		
Odor	Odorless.		
pH	AP 7		
Vapor Pressure	LT 0.1 mm of Hg at 70°F.	Viscosity	AP 78 to 90 SUS at 100°F. (ASTM D-2161)
Vapor Specific Gravity	GT 10 when Air = 1.0 at 70°F.	Melting/Freezing Pt.	LT 15°F (-9°C) (ASTM D-97)
Volatile Characteristics	Negligible (LT 0.1 Wt.%)	Solubility in Water	Negligible (LT 0.1 Wt.%)
Boiling Point/Range	AP 575° to 800°F (300° to 425°C)(ASTM D-86)	Specific Gravity	AP 0.84 to 0.86 (ASTM D-1250)
Additional Properties	Viscosity Index = AP 100 (ASTM D-2270); Average Calculated Density = AP 7.100 lbs./gal.; Kinematic Viscosity = AP 14 to 17 cSt at 40°C (and 3.5 cSt at 100°C) (ASTM D-445); Saybolt Viscosity = AP 38 SUS at 210°F (ASTM D-2161); Aniline Point Temperature = AP 225°F (107°C) (ASTM D-611); Sulfur Content = LT 0.001 Wt.% (ASTM D-2622).		

**SECTION 10: STABILITY AND REACTIVITY**

Chemical Stability	Stable.
Conditions to Avoid	Extreme heat and open flame.
Incompatibility with Other Materials	Strong acids, alkalis, and oxidizers such as liquid Chlorine and Oxygen.
Hazardous Decomposition Products	Burning or excessive heating may produce smoke, Carbon Monoxide, Carbon Dioxide, and possibly other harmful gases/vapors.

**Hazardous  
Polymerization**

Not expected to occur.

## SECTION 11: TOXICOLOGICAL INFORMATION

Under normal anticipated conditions of use, this product should not present a risk to human health.

### Low-viscosity and High-viscosity White Mineral Oils:

GAS (LC50):	Acute: GT 5.0 mg/L (Rat screen level).
ORAL (LD50):	Acute: GT 5,000 mg/kg (Rat screen level).
DERMAL (LD50):	Acute: GT 2,000 mg/kg (Rabbit screen level).
DRAIZE EYE:	Acute: Non-irritating (Rabbit).
DRAIZE DERMAL:	Acute: Non-irritating (Rabbit).
BUEHLER DERMAL:	Acute: Non-sensitizing (Guinea Pig).
28-Day DERMAL:	Sub-Chronic: Non-irritating (Rabbit).
104-Week DERMAL:	Chronic: No skin tumors at site of application (Mouse).
MUTAGENICITY:	
modified Ames Assay:	Negative (Salmonella typhimurium).
in-vitro SCE Ovary Assay:	No toxicity = no test (Chinese Hamster).
in-vitro Lymphoma Assay:	Negative or no toxicity (Mouse).

Lifetime mouse skin painting studies indicated this product is NOT mutagenic or carcinogenic.

## SECTION 12: ECOLOGICAL INFORMATION


Ecological effects testing has not been conducted on this product. If it were spilled, no significant detrimental effects would be expected to occur.

Petroleum-based oils will normally float on water. If the oil layer covers a large area, especially in stagnant or slow-flowing waterways, the dissolved Oxygen content of the water may be depleted over time and lead to adverse effects on fish and other aquatic life.

## SECTION 13: DISPOSAL CONSIDERATIONS

Maximize product recovery for reuse or recycling. Conditions of use may cause this material to become a "hazardous waste", as defined by state or federal laws. Use approved storage, treatment, transporters, and disposal sites in compliance with all applicable regulations. If spill is introduced into a wastewater treatment system, chemical and biological oxygen demand will likely increase. Spill material is biodegradable if gradually exposed to microorganisms, preferably in an aerobic environment. Potential treatment and disposal methods include land farming, incineration, and land disposal, if permitted.

## SECTION 14: TRANSPORT INFORMATION

DOT Status	Not a U.S. Department of Transportation regulated material.		
Proper Shipping Name	Not a D.O.T. "Hazardous Material".		
Hazard Class	Not regulated.		
UN/NA ID	Not applicable.	Packing Group(s)	Not applicable.
Reportable Quantity	Not applicable.		
Placards		Emergency Response Guide Number	Not applicable.
		HAZMAT STCC Number	Not applicable.
		MARPOL III Status	Not applicable.

**SECTION 15: REGULATORY INFORMATION**

**TSCA** All components of this product are listed on the Toxic Substance Control Act (TSCA) inventory.

**SARA 302/304** The **Superfund Amendments and Reauthorization Act of 1986 (SARA)** Title III requires emergency planning based on **Threshold Planning Quantities (TPQs)** and release reporting based on **Reportable Quantities (RQs)** in 40 CFR 355 (used for SARA 302, 304, 311 and 312). No chemical components present in this product exceed the de minimus reporting level established under this statute.

**SARA 311/312** The Superfund Amendments and Reauthorization Act of 1989 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This product would be classified under the following hazard categories:  
None known to apply!

**SARA 313** The **Superfund Amendments and Reauthorization Act of 1986 (SARA)** Title III requires submission of an annual "**Toxic Chemicals**" Release Inventory report under 40 CFR 372. Chemical substances that must be accounted for under SARA Section 313 must also be identified in all product MSDSs that are impacted by the regulation. No chemical components present in this product exceed the de minimus reporting level established under this statute.

**CERCLA** The **Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)** requires notification of the National Response Center concerning release of quantities of "**Hazardous Substances**" equal to or greater than the **Reportable Quantities (RQs)** listed in 40 CFR 302.4. No chemical components present in this product are subject to the reporting requirements under this statute.

**California Proposition 65** Per the **California Safe Drinking Water and Toxics Enforcement Act of 1986**, this product DOES NOT contain any known ingredients for which the State of California has found to cause cancer, birth defects, or other reproductive harm, which requires a warning under the statute.

**Additional Regulatory Remarks** The **Federal Hazardous Substances Act**, related statutes, and Consumer Product Safety Commission regulations, as defined by 16 CFR 1500.14(b)(3) and 1500.83(a)(13): This product contains "**Petroleum Distillates**" which require special labeling if distributed in a manner intended, or packaged in a form suitable, for use in the household or by children. Precautionary label dialogue must display the following: **Contains Petroleum Distillates! May be harmful or fatal if swallowed! KEEP OUT OF REACH OF CHILDREN! DO NOT SIPHON BY MOUTH!**

**Food and Drug Administration (FDA):** This product is manufactured to meet FDA requirements for "**Technical White Mineral Oil**" as defined by 21 CFR 178.3620(b)(1). It is suitable for use as a component of non-food articles intended for use in contact with food, or as a lubricant added to food indirectly as a result of incidental contact with containers or equipment, subject to all provisions listed under 21 CFR 178.3620. This product contains about 10 ppm of dl-alpha-Tocopherol (Vitamin E) as a antioxidant stabilizer.

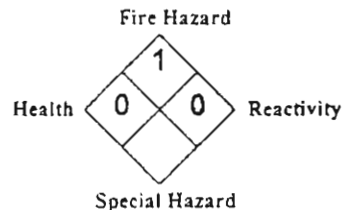
**SECTION 16: OTHER INFORMATION**

**HMIS (U.S.A.)**

Health Hazard	0
Fire Hazard	1
Reactivity	0

\* = Chronic Health Hazard

**National Fire Protection Association (U.S.A.)**



DISCLAIMER OF LIABILITY

"The information on this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied regarding its correctness.

Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with handling, storage, use or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable."

#### REVISION INFORMATION

Version Number 16  
Revision Date 7/3/96  
Revision History Converted to ANSI 16-section format on 7/3/96.  
Additional comments were incorporated into all Sections of this MSDS.  
Print Date Printed on 7/9/96.

#### ABBREVIATIONS

EQ = Equal    LT = Less Than    GT = Greater Than    AP = Approximately  
NA = Not Applicable    ND = No Data

\*\*\*\*\* END OF MSDS \*\*\*\*\*