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|----------------------|--------------------|------------|--------|
| Issue Date:          | 01/01/2009         | MSDS Code: | 775805 |
| Previous Issue Date: | 08/15/2008         |            |        |
| Trade Name:          | Conoco Turbine Oil |            |        |
| Sizes:               | All Grades         |            |        |

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - IDENTIFICATION

**Manufacturer/Supplier:**  
**Dial Manufacturing, Inc.**  
 25 S. 51st Avenue  
 Phoenix, Arizona 85043  
 Tel. No.: (602) 278-1100

**Responsible Party:**  
 Conoco Phillips Lubricants  
 600 N. Dairy Ashford  
 Houston, TX 77079-1175  
 (800) 640-1956/(800) 255-9556

|                                 |   |
|---------------------------------|---|
| Product Name:                   | <b>ZOOM SPOUT OILER</b>   |
| Synonyms:                       | Turbine Oil 32, 46, 68 & 100  |
| Generic Name:                   | Industrial Oil  |
| Product Number:                 | 5713 / 5714   |
| Chemical Family:                | Petroleum Hydrocarbon   |
| NFPA 704 Hazard Classification: | HEALTH HAZARD: 1 - Slight<br>FLAMMABILITY: 1 - Slight<br>INSTABILITY: 0 - Least |

**24 Hour Emergency Phone:** Call CHEMTREC: N. America (800) 424-9300 / Others: (703) 527-3887 collect

## SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

### NON-HAZARDOUS COMPONENTS

| Component/CAS No:                      | Percent (%)          | ACGIH:   | OSHA:                  | NIOSH:                     | Other:   |
|--|----------------------|--|------------------------|----------------------------|--|
| Lubricant Base Oil (Petroleum) VARIOUS | 99-100               | 5mg/m <sup>3</sup> TWA<br>10mg/m <sup>3</sup> STEL | 5mg/m <sup>3</sup> TWA | 2500mg/m <sup>3</sup> IDLH | As Oil Mist, if Generated<br>5mg/m <sup>3</sup><br>NOHSC TWA |
| Additives PROPRIETARY                  | 0-1<br>1%=10,000 PPM | NE   | NE                     | NE                         | NE   |

NE=Not Established

The base oil for this product can be a mixture of any of the following highly refined petroleum streams: CAS 64741-88-4; CAS 64741-89-5; CAS 64741-96-4; CAS 64741-97-5; CAS 64742-01-4; CAS 64742-52-5; CAS 64742-53-6; CAS 64742-54-7; CAS 64742-55-8; CAS 64742-56-9; CAS 64742-57-0; CAS 64742-62-7; CAS 64742-63-8; CAS 64742-65-0; CAS 72623-83-7; CAS 72683-85-9; CAS 72623-86-0; CAS 72623-87-1

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

## SECTION 3 - POTENTIAL ADVERSE HEALTH EFFECTS

|   |   |
|---|---|
| <b>Eye Contact:</b>                     | This material may cause eye irritation. Direct contact may cause stinging, tearing and redness.   |
| <b>Skin Contact:</b>                    | This material may cause mild skin irritation, including redness and a burning sensation. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin leading to dermatitis (inflammation). No harmful effects from skin absorption are expected. |
| <b>Inhalation (Breathing):</b>          | No information available. Studies by other exposure routes suggest a low degree of toxicity by inhalation.  |
| <b>Ingestion (Swallowing):</b>          | No harmful effects expected from ingestion.   |
| <b>Signs &amp; Symptoms:</b>            | Effects of overexposure may include irritation of the digestive tract, nausea, and diarrhea. Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.  |
| <b>Cancer:</b>                          | Inadequate evidence available to evaluate the cancer hazard of this material. See Section 11 for carcinogenicity information of individual components, if any.  |
| <b>Target Organs:</b>                   | No data available for this material.  |
| <b>Developmental:</b>                   | No data available for this material.  |
| <b>Pre-Existing Medical Conditions:</b> | Conditions aggravated by exposure may include skin disorders.   |



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## SECTION 4 – EMERGENCY AND FIRST AID PROCEDURES

|                                |  |
|--------------------------------|--|
| <b>Eye Contact:</b>            | If irritation or redness develops, move victim away from exposure and into fresh air. Flush the affected eye(s) with clean water. If symptoms persist, seek medical attention.   |
| <b>Skin Contact:</b>           | Do not use gasolines, thinners or solvents to remove product from skin. Wipe material from skin and remove contaminated shoes and clothing. Cleanse affected area(s) thoroughly by washing with mild soap and water and, if necessary, a waterless skin cleanser. If irritation or redness develops and persists, seek medical attention.  |
| <b>Inhalation (Breathing):</b> | If respiratory symptoms develop, move victim away from source of exposure and into fresh air. If symptoms persists, seek medical attention. If victim is not breathing clear airway and immediately being artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.   |
| <b>Ingestion (Swallowing):</b> | First aid is not normally required; however, if swallowed and symptoms develop, seek medical attention.  |
| <b>Note to Physician:</b>      | <p>High-pressure hydrocarbon injection injuries may produce substantial necrosis of underlying tissue despite an innocuous appearing external wound. Often these injuries require extensive emergency surgical debridement and all injuries should be evaluated by a specialist in order to assess the extent of injury.</p> <p>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.</p> |

## SECTION 5 – FIRE-FIGHTING MEASURES

|                     |                                    |                                  |                |
|---------------------|------------------------------------|----------------------------------|----------------|
| <b>Flash Point:</b> | >410°F / 210°C                     | <b>OSHA Flammability Class:</b>  | Not Applicable |
| <b>Test Method:</b> | Cleveland Open Cup (COC), ASTM D92 | <b>Autoignition Temperature:</b> | No Data        |
| <b>LEL%:</b>        | No Data                            | <b>UEL %:</b>                    | No Data        |

|  |   |
|--|---|
| <b>Extinguishing Media:</b>                | 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.  |
| <b>Unusual Fire and Explosion Hazards:</b> | 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.  |
| <b>Fire Fighting Procedures:</b>           | <p>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).</p> <p>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.</p> <p>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.</p> |



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## SECTION 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. If spill of any amount is made into or upon navigable waters, the contiguous zone or adjoining shorelines, notify the National Response Center (phone number 800-424-8802).

## SECTION 7 – HANDLING & 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 & 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.

High pressure injection of hydrocarbon fuels, hydraulic oils or greases under the skin may have serious consequences even though no symptoms or injury may be apparent. This can happen accidentally when using high pressure equipment such as high pressure grease guns, fuel injection apparatus or from pinhole leaks in tubing of high pressure hydraulic oil equipment.

Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding or other contemplated operations.

**Storage:**

Keep container(s) tightly closed. Use and store this material in a cool, dry well-ventilated area 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.



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## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                    |   |
|------------------------------------|---|
| <b>Ventilation:</b>                | If current ventilation practices are not adequate in maintaining airborne concentrations below the established exposure limits (see Section 2), additional ventilation or exhaust systems may be required.  |
| <b>Respiratory Protection:</b>     | <p>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).</p> <p>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.</p> <p>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.</p> |
| <b>Skin:</b>                       | The use of gloves impervious to the specific material handled is advised to prevent skin contact and possible irritation (see manufacturer's literature for information on permeability).   |
| <b>Eye/Face:</b>                   | Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended. Depending on conditions of use, a face shield may be necessary.  |
| <b>Other Protective Equipment:</b> | A source of clean water be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed. Suggestions for 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.  |

## SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES

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

|                                |                                    |   |                   |
|--------------------------------|------------------------------------|---|-------------------|
| <b>Appearance:</b>             | Clear, Yellow to Brown             | <b>Physical Form:</b>                                 | Liquid            |
| <b>Odor:</b>                   | Characteristic petroleum           | <b>Odor Threshold:</b>                                | No Data           |
| <b>pH:</b>                     | Not applicable                     | <b>Vapor Pressure (mm Hg):</b>                        | <1                |
| <b>Vapor Density (air=1)::</b> | >1                                 | <b>Boiling Point:</b>                                 | >555° F / 291° C  |
| <b>Solubility in Water:</b>    | Negligible                         | <b>Partition Coefficient (n-octanol/water) (Kow):</b> | No Data           |
| <b>Specific Gravity:</b>       | 0.858-0.897                        | <b>Bulk Density:</b>                                  | 7.17-7.42 lbs/gal |
| <b>Viscosity cSt @ 100° C:</b> | 4.30-30.6                          | <b>Viscosity cSt @ 40° C:</b>                         | 22-460            |
| <b>Percent Volatile:</b>       | Negligible                         | <b>Evaporation Rate (nBuAc=1):</b>                    | <1                |
| <b>Flash Point:</b>            | >410° F / 210° C                   | <b>LEL %:</b>   | No Data           |
| <b>Test Method:</b>            | Cleveland Open Cup (COC), ASTM D92 | <b>UEL %:</b>   | No Data           |
| <b>Autoignition Temp:</b>      | No Data                            | <b>Decomposition Temp:</b>                            | No Data           |

## SECTION 10 - STABILITY & REACTIVITY DATA

|  |  |
|--|--|
| <b>Stability:</b>                            | Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. |
| <b>Conditions to Avoid:</b>                  | Extended exposure to high temperatures can cause decomposition.  |
| <b>Incompatibility (Materials to Avoid):</b> | Avoid contact with strong oxidizing agents.  |
| <b>Hazardous Decomposition Products:</b>     | Combustion can yield carbon, nitrogen and sulfur oxides.   |
| <b>Hazardous Polymerization:</b>             | Will not occur.  |



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## SECTION 11 – TOXICOLOGICAL INFORMATION

|                         |   |  |  |
|-------------------------|---|--|--|
| <b>Chronic Data:</b>    | <b>Lubricant Base Oil (Petroleum) – CAS: VARIOUS</b>  |  |  |
| <i>Carcinogenicity:</i> | The petroleum base oils contained in this product have been highly refined by a variety of processes including solvent extraction, hydro treating and dewaxing to remove aromatics and improve performance characteristics. All of the oils meet the IP-346 criteria of less than 3 percent PAH's and therefore none are listed as a carcinogen by NTP, IARC or OSHA. |  |  |
| <b>Acute Data:</b>      | <b>Lubricant Base Oil (Petroleum) – CAS: VARIOUS</b>  |  |  |
| <i>Dermal</i>           | LD50 = >2 g/kg – LC50 = No information available  |  |  |
| <i>Oral</i>             | LD50 = >5 g/kg  |  |  |
|                         | <b>Additives – CAS: VARIOUS</b>   |  |  |
| <i>Dermal</i>           | LD50 = No information available – LC50 = No information available   |  |  |
| <i>Oral</i>             | LD50 = No information available   |  |  |

## SECTION 12 – ECOCOLOGICAL INFORMATION

Not evaluated at this time.

## SECTION 13 – DISPOSAL CONSIDERATIONS

This material under most intended uses would become used oil due to contamination by physical or chemical impurities. RECYCLE ALL USED OIL. While being recycled, used oil is regulated by 40 CFR 279. Use resulting in chemical or physical change or contamination may also subject it to regulation as a hazardous waste. Under federal regulations, used oil is a solid waste managed under 40 CFR 279. However, in California, used oil is managed as hazardous waste until tested to show it is not hazardous. Consult state and local regulations regarding the proper handling of used oil. In the case of used oil, the intent to discard it may cause the used oil to be regulated as hazardous waste.

Contents should be completely used and containers emptied prior to discard. Rinsate may be considered a RCRA hazardous waste and must be disposed of with care and in compliance with federal, state and local regulations. Large empty containers, such as drums, should be returned to the distributor or a drum reconditioner. To assure proper disposal of small empty containers, consult with state and local regulations and disposal authorities.

## SECTION 14 – TRANSPORTATION DATA

|   |               |                            |               |
|---|---------------|----------------------------|---------------|
| <b>DOT Proper Shipping:</b>   | Not Regulated |                            |               |
| <b>IMDG Shipping:</b>   | Not Regulated | <b>ICAO/IATA Shipping:</b> | Not Regulated |
| <b>Note:</b> Material is unregulated unless in container of 3500 gallons or more, then provisions of 49 CFR Part 130 apply for land shipment. |               |                            |               |

## SECTION 15 – REGULATORY INFORMATION

### US REGULATIONS:

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

|                        |    |                         |    |
|------------------------|----|-------------------------|----|
| <i>Acute Health:</i>   | No | <i>Chronic Health:</i>  | No |
| <i>Fire Hazard:</i>    | No | <i>Pressure Hazard:</i> | No |
| <i>Reactive Hazard</i> | 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 TPOs (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--



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## SECTION 15 – REGULATORY INFORMATION (cont'd)

### 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.

### INTERNATIONAL REGULATIONS:

#### 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

### Disclaimer of Expressed and Implied Warranties

The information in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Data Safety Sheet was prepared.

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