



## MATERIAL SAFETY DATA SHEET

### Eclipse(TM) "W" Natural Gas Engine Oil (All Grades)

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Synonyms:** SAE 20W-40, 30/40, 40  
**Formula:** Mixture  
**Chemical Family:** Mixture  
**CAS Number:** Mixture  
**SAP Code:** 1012631; 1012632; 1037151  
**Product Code:** 45740; 45750; 45760  
**MSDS Number:** 425920  
**NFPA Ratings:** Health 0, Flammability 1, Reactivity 0  
**HMIS Ratings:** Health 0, Flammability 1, Reactivity 0  
**Intended Use(s):** Industrial Natural Gas Engine Oil

The intended use of this product is indicated above, if any additional use is known please contact us at the Technical Information number listed below.

**Manufactured By:** Phillips 66 Company  
 A Division of Phillips Petroleum Company  
 Bartlesville, Oklahoma 74004

### Phone Numbers

**Emergency:** (918) 661-8118  
**Technical Information:** (800) 766-0050  
**For Additional MSDSs:** (918) 661-5974

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Specification and CAS #	Weight % In Product*	ACGIH TLV (TWA)	ACGIH Short Term Exposure Limit	ACGIH Ceiling Limits	ACGIH Skin Designation	OSHA Final PEL (TWA)	OSHA - Final PELs - Ceiling Limits	OSHA - Final PELs - Skin Notation
Base stock 64741-88-4	80% to 95%	NE	NE	NE	NE	NE	NE	NE
Borated polyisobutenyl succinic anhydride	0% to 10%	NE	NE	NE	NE	NE	NE	NE
Magnesium and calcium alkylaryl detergent	0% to 1%	NE	NE	NE	NE	NE	NE	NE
Petroleum based lubricants 64742-54-7	0% to 10%	NE	NE	NE	NE	NE	NE	NE
Solvent-Dewaxed Heavy Paraffinic Petroleum Distillates 64742-65-0	0% to 5%	NE	NE	NE	NE	NE	NE	NE
2-Propenoic acid, 2-methyl-, eicosyl ester, polymer with 1-ethenyl-2-pyrrolidinone, hexadecyl 2-methyl-2-propenoate, isodecyl 2-methyl-2-propenoate, etc. 68171-46-0	0% to 2%	NE	NE	NE	NE	NE	NE	NE
Polybutene 9003-29-6	0% to 1%	NE	NE	NE	NE	NE	NE	NE

Zinc dialkyldithiophosphate 68649-42-3	0.67% to 1.33%	NE	NE	NE	NE	NE	NE	NE
Mineral Oil	0.1% to 1.0%	NE	NE	NE	NE	NE	NE	NE
Zinc dialkyl dithiophosphate 68457-79-4	0.67% to 1.33%	NE	NE	NE	NE	NE	NE	NE

\* 1% = 10,000 ppm.

See Section 8 for additional Exposure Limits.

### 3. HAZARDS IDENTIFICATION

#### Emergency Overview

Non-Hazardous. Pressure Injection.

#### Potential Acute Health Effects

**Eye Contact:** May cause mild irritation.

**Skin Contact:** May cause mild irritation with prolonged or repeated contact.

**Inhalation:** No acute effects expected due to low vapor pressure.

**Ingestion:** Slightly toxic (LD50 > 5 gm/kg).

**Aggravated Medical Conditions:** Skin Disorders.

### 4. FIRST AID MEASURES

**Eye Contact:** Flush eyes with running water. If irritation or adverse symptoms develop, seek medical attention.

**Skin Contact:** Wash skin with soap and water. If irritation or adverse symptoms develop, seek medical attention.

**Inhalation:** Remove from exposure. If illness or adverse symptoms develop, seek medical attention.

**Ingestion:** If illness or adverse symptoms develop, seek medical attention.

**Notes To Physician:** For injection injuries, immediate medical treatment is required. Physicians may call the emergency number (918) 661-8118.

### 5. FIRE FIGHTING MEASURES

**Flash Point:** 395F to 437F (202C to 225C)

**FP Method:** COC

**Ignition Temperature:** 725F est.

#### Flammable Limits (% by Volume in Air)

**Lower Explosive Limit -** Not Established

**Upper Explosive Limit -** Not Established

**Fire Extinguishing Media:** Carbon Dioxide, Dry Chemicals, Foam

**Fire Fighting Procedures:** Evacuate area and fight fire from a safe distance. Shut off source, if possible. Use NIOSH approved self-contained breathing apparatus and other protective equipment and/or garments described in Section 8 if conditions warrant. Use water spray to cool nearby containers and structures exposed to fire.

**Fire and explosion hazards:** Carbon oxides formed when burned.

## 6. ACCIDENTAL RELEASE MEASURES

Sweep or gather up material and place in proper container for disposal or recovery.

## 7. HANDLING AND STORAGE

Avoid contact with eyes, skin or clothing. Avoid breathing vapors, mist, fume or dust. Wash thoroughly after handling. Use with adequate ventilation. Wear protective equipment and/or garments described in Section 8 if exposure conditions warrant. Launder contaminated clothing before reuse. Store in closed container. Store in well-ventilated area.

If pressure injected under the skin, can cause gangrene if not treated.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Eye Protection:** Wear safety glasses.

**Respiratory Protection:** For concentrations exceeding an applicable exposure limit, use NIOSH approved air purifying respirator equipped with P95 filters, for particulate with time weighted average exposure limit not less than 0.05 mg/M3.

**Skin Protection:** Use gloves resistant to the material(s) contained in this product. (Viton)

**Ventilation:** Use adequate ventilation to control concentrations below applicable exposure limits.

**Other Personal Protection:** Personal protection information shown in Section 8 is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

**Exposure Limits:** OSHA PEL and ACGIH TLV for oil mists is 5 mg/m3.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Liquid
<b>Appearance:</b>	Amber
<b>Odor:</b>	Mild
<b>Odor Threshold (ppm):</b>	Unknown
<b>Boiling Point:</b>	Not Determined
<b>Melting/Freeze Point:</b>	Not Established
<b>Vapor Pressure:</b>	<0.0001 mm Hg @ 68F (20C)
<b>Vapor Density (Air=1):</b>	> 1
<b>Specific Gravity @ 20 C (Water=1):</b>	0.88 - 0.89 @ 60F (16C)
<b>Percent Volatile by Volume:</b>	Negligible
<b>Evaporation Rate (Butyl Acetate=1):</b>	Negligible
<b>Water Solubility:</b>	Negligible

**Viscosity:** 117 - 120 cSt @ 104F (40C)

## 10. STABILITY AND REACTIVITY

**Stability:** Stable  
**Hazardous Polymerization:** Will Not Occur  
**Incompatibility (Materials to Avoid):** Oxygen and strong oxidizing agents.  
**Hazardous Decomposition Products:** Carbon oxides and various hydrocarbons are formed when burned.

## 11. TOXICOLOGICAL INFORMATION

### Subchronic and Chronic Effects:

Prolonged and repeated exposure to oil mist poses a risk of pulmonary disease such as lung inflammation. This condition usually causes no symptoms.

### Other Health Effects:

Pressurized injection of product under the skin can lead to seriously inflamed tissue. If left untreated injury can become gangrenous.

Continuous skin contact with used motor oils has caused skin cancer in laboratory animals. Avoid prolonged skin contact with used motor oil.

These products may contain petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking or severe hydrotreating. None of the oils require a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200)

## 12. ECOLOGICAL INFORMATION

No data at this time.

## 13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

## 14. TRANSPORT INFORMATION

### Ground Transportation

**DOT Shipping Description:** Not Regulated

## 15. REGULATORY INFORMATION

**Borated polyisobutenyl succinic anhydride** 0% to 10%  
**Regulated Substance on TSCA Inventory:** Listed

**Magnesium and calcium alkylaryl detergent** 0% to 1%  
**Regulated Substance on TSCA Inventory:** Listed

**Petroleum based lubricants** 0% to 10% **64742-54-7**  
**Regulated Substance on TSCA Inventory:** Listed  
**Canada - Domestic Substances List:** Listed

**Solvent-Dewaxed Heavy Paraffinic Petroleum Distillates** 0% to 5% **64742-65-0**

**Regulated Substance on TSCA Inventory:** Listed

**Canada - Domestic Substances List:** Listed

**2-Propenoic acid, 2-methyl-, eicosyl ester, polymer with 1-ethenyl-2-pyrrolidinone, hexadecyl 2-methyl-2-propenoate, isodecyl 2-methyl-2-propenoate, etc.** 0% to 2% **68171-46-0**

**Regulated Substance on TSCA Inventory:** Listed

**Canada - Domestic Substances List:** Listed

**Polybutene** 0% to 1% **9003-29-6**

**Regulated Substance on TSCA Inventory:** Listed

**Canada - Domestic Substances List:** Listed

**Zinc dialkyldithiophosphate** 0.67% to 1.33% **68649-42-3**

**Regulated Substance on TSCA Inventory:** Listed

**Canada - Domestic Substances List:** Listed

**Base stock** 80% to 95% **64741-88-4**

**Regulated Substance on TSCA Inventory:** Listed

**Canada - Domestic Substances List:** Listed

**Mineral Oil** 0.1% to 1.0%

**Regulated Substance on TSCA Inventory:** Listed

**Zinc dialkyl dithiophosphate** 0.67% to 1.33% **68457-79-4**

**Regulated Substance on TSCA Inventory:** Listed

**Canada - Domestic Substances List:** Listed

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

**Acute Health:** No

**Chronic Health:** No

**Fire Hazard:** No

**Pressure Hazard:** No

**Reactivity Hazard:** No

## **16. OTHER INFORMATION**

#### **Revision Summary:**

This Material Safety Data Sheet (MSDS) has been revised to conform with the American National Standards Institute (ANSI) 16 Section Format.

**Preparer:** Health, Environment and Safety Department

**Date Prepared:** 10/22/2001

**Supersedes:** 06/30/1993

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