

# Material Safety Data Sheet

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Chevron Ultra-Duty Grease EP

**Product Use:** Grease

**Product Number(s):** CPS238011, CPS238012, CPS238013

**Synonyms:** Chevron Ultra-Duty Grease EP NLGI 0, Chevron Ultra-Duty Grease EP NLGI 1, Chevron Ultra-Duty Grease EP NLGI 2

#### Company Identification

Chevron Products Company  
a division of Chevron U.S.A. Inc.  
6001 Bollinger Canyon Road  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

#### Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

#### Health Emergency

Chevron Emergency Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

#### Product Information

email : lubemsds@Chevron.com

Product Information: (800) LUBE TEK

MSDS Requests: (800) 414-6737

## SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	65 - 80 %wt/wt
Zinc dialkyldithiophosphate	68649-42-3	1 - 5 %wt/wt

## SECTION 3 HAZARDS IDENTIFICATION

#### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory

irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

## SECTION 4 FIRST AID MEASURES

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

**Note to Physicians:** In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

## SECTION 5 FIRE FIGHTING MEASURES

### FIRE CLASSIFICATION:

OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

### FLAMMABLE PROPERTIES:

**Flashpoint:** 274 °C (525 °F) (Min)

**Autoignition:** No Data Available

**Flammability (Explosive) Limits (% by volume in air):** Lower: Not Applicable Upper: Not Applicable

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

### PROTECTION OF FIRE FIGHTERS:

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**Precautionary Measures:** Keep out of the reach of children.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### ENGINEERING CONTROLS:

Use in a well-ventilated area.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Silver Shield, Viton.

**Respiratory Protection:** No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

### Occupational Exposure Limits:

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	--	--
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	--	--	--

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

**Color:** Red

**Physical State:** Semi-solid  
**Odor:** Petroleum odor  
**pH:** Not Applicable  
**Vapor Pressure:** <0.01 mmHg @ 100 °C (212 °F)  
**Vapor Density (Air = 1):** >1  
**Boiling Point:** >260°C (500°F)  
**Solubility:** Soluble in hydrocarbons; insoluble in water  
**Melting Point:** 165°C (329°F) (Min)  
**Density:** @ 15°C (59°F)  
**Viscosity:** No data available  
**Evaporation Rate:** No Data Available

## SECTION 10 STABILITY AND REACTIVITY

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.  
**Incompatibility With Other Materials:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.  
**Hazardous Decomposition Products:** None known (None expected)  
**Hazardous Polymerization:** Hazardous polymerization will not occur.

## SECTION 11 TOXICOLOGICAL INFORMATION

### IMMEDIATE HEALTH EFFECTS

**Eye Irritation:** The Draize eye irritation mean score in rabbits for a 24-hour exposure was: 6.7/110.  
**Skin Irritation:** For a 24-hour exposure, the Primary Irritation Score (PIS) in rabbits is: 0.6/8.0.  
**Skin Sensitization:** No product toxicology data available.  
**Acute Dermal Toxicity:** LD50: >2g/kg (rat).  
**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.  
**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

### ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as: carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.

### ENVIRONMENTAL FATE

This material is not expected to be readily biodegradable.

**SECTION 13 DISPOSAL CONSIDERATIONS**

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

**SECTION 14 TRANSPORT INFORMATION**

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**DOT Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

**Additional Information:** NOT HAZARDOUS BY U.S. DOT. ADR/RID HAZARD CLASS NOT APPLICABLE.

**IMO/IMDG Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

**ICAO/IATA Shipping Description:** PETROLEUM LUBRICATING GREASE; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

**SECTION 15 REGULATORY INFORMATION**

- EPCRA 311/312 CATEGORIES:** 1. Immediate (Acute) Health Effects: NO  
 2. Delayed (Chronic) Health Effects: NO  
 3. Fire Hazard: NO  
 4. Sudden Release of Pressure Hazard: NO  
 5. Reactivity Hazard: NO

**REGULATORY LISTS SEARCHED:**

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK
	07=PA RTK

The following components of this material are found on the regulatory lists indicated.

Zinc dialkyldithiophosphate 03, 06

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: KECI (Korea).

**NEW JERSEY RTK CLASSIFICATION:**

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: PETROLEUM OIL (Grease)

**WHMIS CLASSIFICATION:**

This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 0 Flammability: 1 Reactivity: 0

**HMIS RATINGS:** Health: 1 Flammability: 1 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*-Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

**LABEL RECOMMENDATION:**

Label Category : GREASE 1 - GRS1

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 2

**Revision Date:** June 28, 2006

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Government Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the Chevron Energy Technology Company, 100 Chevron Way, Richmond, California 94802.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

VALVOLINE HIGH PERFORMANCE  
SAE 85W-140 GEAR OIL  
3095

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone	1-800-ASHLAND (1-800-274-5263)
Product name	VALVOLINE HIGH PERFORMANCE SAE 85W-140 GEAR OIL	
Product code	3095	
Product Use Description	No data	

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

Appearance: liquid,, amber

CAUTION! PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.

**Potential Health Effects**

**Routes of exposure**

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

**Eye contact**

May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

**Skin contact**

Unlikely to cause skin irritation or injury. Prolonged or repeated contact may dry and crack the skin.

**Ingestion**

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

**Inhalation**

VALVOLINE HIGH PERFORMANCE  
SAE 85W-140 GEAR OIL  
3095

Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

**Aggravated Medical Condition**

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:, Skin

**Symptoms**

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways)

**Target Organs**

No data

**Carcinogenicity**

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). Used motor oil has been shown to cause skin cancer in laboratory animals continually exposed by repeated applications. Avoid prolonged or repeated skin contact.

**Reproductive hazard**

There are no data available for assessing risk to the fetus from maternal exposure to this material.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Components</b>	<b>CAS-No.</b>	<b>Concentration</b>
DISTILLATES, SOLVENT-REFINED HEAVY PARAFFINIC	64741-88-4	>=0.1-<0.5%
PETROLEUM DISTILLATE	NJTS# 800986-5245P	>=0.1-<0.5%

**4. FIRST AID MEASURES**

**Eyes**



VALVOLINE HIGH PERFORMANCE  
SAE 85W-140 GEAR OIL  
3095

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

### **Skin**

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

### **Ingestion**

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

### **Inhalation**

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

### **Notes to physician**

**Hazards:** Acute aspiration 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. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

**Treatment:** No information available.

## **5. FIRE-FIGHTING MEASURES**

### **Suitable extinguishing media**

Carbon dioxide (CO2), Dry chemical

### **Hazardous combustion products**

May form:, carbon dioxide and carbon monoxide

VALVOLINE HIGH PERFORMANCE  
SAE 85W-140 GEAR OIL  
3095

**Precautions for fire-fighting**

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

**Environmental precautions**

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up**

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

**Other information**

Comply with all applicable federal, state, and local regulations.

**7. HANDLING AND STORAGE**

**Handling**

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

**Storage**

Store in a cool, dry, ventilated area.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

VALVOLINE HIGH PERFORMANCE  
SAE 85W-140 GEAR OIL  
3095

## **Exposure Guidelines**

### **General advice**

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

### **Exposure controls**

General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

### **Eye protection**

Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

### **Skin and body protection**

Not normally required. However, wear resistant gloves such as nitrile rubber to prevent irritation which may result from prolonged or repeated skin contact with product. Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

### **Respiratory protection**

Respiratory protection is not required under normal conditions of use.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	liquid
<b>Form</b>	No data
<b>Colour</b>	amber

VALVOLINE HIGH PERFORMANCE  
SAE 85W-140 GEAR OIL  
3095

<b>Odour</b>	Petroleum-like odor
<b>Boiling point/boiling range</b>	218.00 °C / 424 °F @ 760.00 mmHg
<b>pH</b>	No data
<b>Flash point</b>	410 °F / 210 °C, Closed Cup
<b>Evaporation rate</b>	No data
<b>Explosion limits</b>	0.9 %(V) 7 %(V)
<b>Vapour pressure</b>	0.10 hPa @ 68 °F / 20 °C
<b>Vapour density</b>	No data
<b>Density</b>	0.9040 g/cm <sup>3</sup> @ 60.01 °F / 15.56 °C 7.55 lb/gal @ 60.00 °F / 15.56 °C
<b>Solubility</b>	No data
<b>Partition coefficient: n-octanol/water</b>	No data
<b>Autoignition temperature</b>	No data

## 10. STABILITY AND REACTIVITY

### Stability

Stable.

### Conditions to avoid

### Incompatible products

Avoid contact with:, strong oxidizing agents

### Hazardous decomposition products

May form:, carbon dioxide and carbon monoxide, oxides of sulfur, nitrogen and phosphorus, hydrocarbons

### Hazardous reactions

Product will not undergo hazardous polymerization.

### Thermal decomposition

No data

## 11. TOXICOLOGICAL INFORMATION

VALVOLINE HIGH PERFORMANCE  
SAE 85W-140 GEAR OIL  
3095

**Acute oral toxicity**

DISTILLATES, SOLVENT-REFINED      LD 50 Rat: > 5,000 mg/kg  
HEAVY PARAFFINIC

PETROLEUM DISTILLATE              LD 50 Rat: > 5,000 mg/kg

**Acute inhalation toxicity**

DISTILLATES, SOLVENT-REFINED      LD 50 Rat: > 3.9 mg/l , 4 h  
HEAVY PARAFFINIC

**Acute dermal toxicity**

DISTILLATES, SOLVENT-REFINED      LD 50 Rabbit: > 2,000 mg/kg  
HEAVY PARAFFINIC

PETROLEUM DISTILLATE              LD 50 Rabbit: > 5,000 mg/kg

**12. ECOLOGICAL INFORMATION**

**Aquatic toxicity**

**Acute and Prolonged Toxicity to Fish**

No data

**Acute Toxicity to Aquatic Invertebrates**

No data

**Environmental fate and pathways**

No data

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal methods**

For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.





## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION.

**D-A Lubricant**  
 1340 W. 29th St.  
 Indianapolis, IN 46208  
 317/923-5321

CHEMICAL EMERGENCY HOTLINE 800 899-9004

PRODUCT NAME: **SULLAIR AWF250025 266**

PRODUCT DESCRIPTION: SULLAIR AWF

CHEMICAL FAMILY: PETROLEUM OIL, MACHINE OIL

EFFECTIVE DATE: 02/01/08

SUPERCEDES DATE: 03/02/05

## SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

COMPONENT	CAS #	% WT	PEL	TLV	STEL	UNITS	LC50, PPM	LD50, MG/KG	
ZINC DIORGANO-DITHIOPHOSPHATE	68649-42-3	1-3							RATI >2000 RABA >2000 SARA Rep.
PETROLEUM OILS	64742-54-7	60-99	5	5		MG/M3			RATI 5000 RABA 5000

## SECTION 3 - HAZARDS IDENTIFICATION

Potential Health Effects: Under normal conditions of use this product does not pose a health risk. Excessive exposure may result in eye, skin or respiratory irritation. See Section 11.

## SECTION 4 - FIRST AID MEASURES

## Emergency and First Aid Procedures

Eye: Immediately flush with water for 15 minutes and call a physician.

Inhalation: If affected, remove to fresh air, administer oxygen and call a physician.

Skin: Wash thoroughly with plenty of water and soap.

Ingestion: Seek a physician immediately; show MSDS or Label; DO NOT induce vomiting.

Wash soiled clothing before wearing again.

## SECTION 5 - FIRE-FIGHTING MEASURES

Classification: Combustible at high temp NFPA Rating: 1.1.0 HMIS Rating 1,1,0  
 Combustion products: CO, CO<sub>2</sub>, Smoke, Sulfur, Nitrogen, Calcium, Phosphorous, and Zinc compounds.

Flash Point Deg F/C: >370/>188

LEL %: N/A % UEL %: N/A %

Extinguishing Media: Water Fog, Foam, Dry Chemical, CO<sub>2</sub>, Sand, or Earth.

UN/NA/PIN#: N/A

## Special Fire Fighting Procedures

Firefighters should wear self-contained breathing equipment. Treat as a Class B fire. Use water to cool threatened containers.

Auto Ign. Temp Deg F/C: >500/>260

Unusual fire and explosion hazards: N/A

Explosion Power: N/A

Impact Sensitive: No

Burning Rate: Low

Static Sensitive: No

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

Listed in SARA Title III, #302: NO

#304, Cercla: NO

#313: YES

Steps to be taken in case material is released or spilled:

Eliminate source if safe to do so. Prevent from entering waterways and drains. Wear suitable personal protective equipment. Dike and absorb with inert material and transfer to a sealed approved container for disposal. Any spill of this material that can enter navigable waters must be reported immediately to the National Response Center (800-424-8802)

PRODUCT NAME: **SULLAIR AWF250025 266**  
 EFFECTIVE DATE: 02/01/08 SUPERCEDES DATE: 03/02/05

Report Quantity, Lb: N/A Kg: N/A TPQ, Lb: N/A  
 Regulations: SARA Other: N/A  
 Hazard Waste: NO

### SECTION 7 - HANDLING AND STORAGE

Precautions to be taken in handling and storing:

Use only in well ventilated areas. Avoid prolonged or repeated breathing of fumes, vapor or mist. Avoid contact with eyes and skin. DO NOT take internally. Wash thoroughly after using. In case of accident or illness, consult a physician immediately; show label and/or MSDS.

Keep out of reach of children.

Always read and follow directions on product label.

Other precautions:

More technical information (MSDS) available upon request. For professional industrial use only. Good personal hygiene is important. Empty containers retain residue which can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other ignition sources; they may explode and cause injury or death.

### SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Use only in well ventilated areas.

Ventilation - Local: Recommended Special: Avoid Heat/Flame  
 Mechanical: Required Other: N/A

Protective Gloves: Oil/Solvent resistant Eye Protection: Safety Glasses/Goggles

Other Protective Equipment:

Oil/Solvent resistant clothing and footwear. If ventilation is inadequate, wear approved respiratory equipment.

Estimated LD50, Mg/Kg: YES Dermal, Rabbit 2000, Oral Rat 13000

Estimated LC50, PPM: NO

Sensitization: NO

Irritant: NO

Synergistic Agents: NO

### SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Pt Deg F/C: >500/>260 Specific Gravity: 0.86 to 0.90  
 Vapor Pressure (MM HG): NIL % Volatile Volume: NIL  
 Vapor Density (Air=1): N/A Evaporation Rate: <0.1  
 Solubility in Water: NEGLIGIBLE Water/Oil Dist Coeff: 0  
 Appearance and Odor: Light brown fluid with Mild Petroleum Odor  
 Physical State: LIQUID PH: N/A  
 Freeze Pt Deg F/C: N/A Threshold Odor, PPM: N/A  
 Other: N/A VOC: Lbs/Gal = N/A  
 Grams/Liter = N/A Grams VOC/Grams Solid = N/A  
 % VOC: N/A

### SECTION 10 - STABILITY AND REACTIVITY

Stable: YES Conditions to Avoid: N/A  
 Incompatibility (Materials to avoid): YES, strong oxidizing agents  
 Hazardous Decomposition Products: YES, combustion products, see Section 5  
 Hazardous Polymerization: NO Conditions to Avoid: N/A

### SECTION 11 - TOXICOLOGICAL INFORMATION

Product guide: TLV see Section 2 STEL: see Section 2

Routes of Entry: Skin contact, Eye, Inhalation, Ingestion

Effects of Overexposure:

Acute; may cause respiratory system, skin, and/or eye irritation.

Ingestion may cause nausea, cramps, diarrhea, and other gastrointestinal disorders.



---

PRODUCT NAME: **SULLAIR AWF250025 266**  
EFFECTIVE DATE: 02/01/08 SUPERCEDES DATE: 03/02/05

---

Chronic; excess mist may cause respiratory problems.

Excess skin contact may cause dryness and/or sensitization.

Any suspected carcinogen = or > 0.1%: NO

Warning: this product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

This product fits the ACGIH definition for mineral oil mist. The ACGIH TLV is 5 mg/m<sup>3</sup>, the OSHA PEL is 5 mg/m<sup>3</sup>.

---

#### **SECTION 12 - ECOLOGICAL INFORMATION**

Environmental Fate: This product is not expected to be readily biodegradable.

Ecotoxicity: No data available.

---

#### **SECTION 13 - DISPOSAL CONSIDERATIONS**

Disposal Method: In accordance with Federal, State, and Local Regulations.

---

#### **SECTION 14 - TRANSPORT INFORMATION**

DOT SHIPPING NAME: NONE

DOT HAZARD CLASS: NONE

DOT IDENTIFICATION NUMBER: NONE

DOT PACKING GROUP: N/A

ADDITIONAL INFO: Petroleum Lubrication Oil - Not Hazardous by U.S. DOT.  
ADR/RID Hazard class - Not applicable.

---

#### **SECTION 15 - REGULATORY INFORMATION**

US OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this product is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

EU Labeling: Product is not dangerous as defined by the European Union Dangerous Substances/Preparations Directives. EU labeling not required.

TSCA: All components of this product are listed on the USA TSCA chemical inventory.

HMIS (USA): 1,1,0

HCS (USA): Not controlled

WHMIS (CANADA): Not controlled

NFPA (USA): 1,1,0

---

#### **SECTION 16 - OTHER INFORMATION**

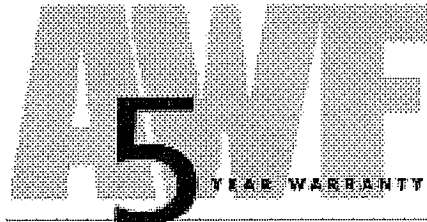
The information and recommendations provided herein are believed to be accurate as of the date hereof. However, such information and recommendations are provided without warranty of any kind and D-A Lubricant disclaims any and all liability or legal responsibility for use or reliance upon same.

---

# SULLAIR COMPRESSOR FLUID

## AWF™ All Weather Fluid,

Specifically Designed for Sullair Portable Compressors.  
You get the advantages of the 5-year warranty\*.



THE SULLAIR PORTABLE COMPRESSORS AIR ENDS ARE WARRANTED FOR 5 YEARS WHEN CONTINUOUSLY SERVICED AT THE RECOMMENDED SERVICE INTERVAL WITH SULLAIR'S AWF COMPRESSOR FLUID AND GENUINE SULLAIR FILTERS. WARRANTY EXCLUDES FLUID OR FILTER REPLACEMENT WHEN EITHER OCCURS FIRST.

©Copyright 1997 Sullair Corporation. All Rights Reserved. Part No. 9200100-001

### The Challenge

Acknowledging that portable compressors operate under demanding conditions, Sullair recognized the need for a compressor fluid that could stand up to these conditions. Portables are usually operated and stored outside, often in extreme weather. Conventional rotary screw compressor fluids become thicker as the temperature drops. This causes a viscous drag on the rotors at startup, making it difficult for gasoline or diesel engines to generate and maintain enough power to sustain operation. In high temperatures, humid climates or severe service, conventional compressor fluids tend to lose viscosity and water tolerance, reducing service life.

### The Sullair Solution

To answer these problems, Sullair developed AWF, the All Weather Fluid. AWF is a multiviscosity, highly refined, petroleum-based fluid designed to allow easier cold weather starting and warmup, while providing exceptional lubrication during hot or severe service. It is fortified with special additives to control fluid oxidation, limit fluid loss from vaporization, minimize wear, prevent rust and corrosion, effectively seal rotors and keep the compressor clean.

### Sullair Fluid Testing

After developing the AWF theory, Sullair conducted various tests to prove its validity. As a basis of comparison in testing, Dexron III®\*\*, a common fluid used in portable compressors, was subjected to the same operating variables as AWF. The performance properties of the two fluids in several tests are illustrated in the chart below:

#### PERFORMANCE PROPERTY TESTS

Test	AWF	Dexron III	Engine Oil
Cold cranking viscosity @ -25°C	1900 cP	2500 cP	6300 cP
Shear stability test viscosity loss	5.2%	20.8%	n/a
High temp./high shear test viscosity loss	4.2%	21.6%	n/a

The cold cranking test showed that the cold fluid viscous drag exhibited by AWF is less than that of Dexron III.

The static and dynamic shear tests address fluid viscosity loss due to severe mechanical stress on the fluid as it is passed between the high speed compressor rotors. Note that AWF is four to five times more resistant to viscosity loss than the Dexron III fluid.

### The Hot Room Test

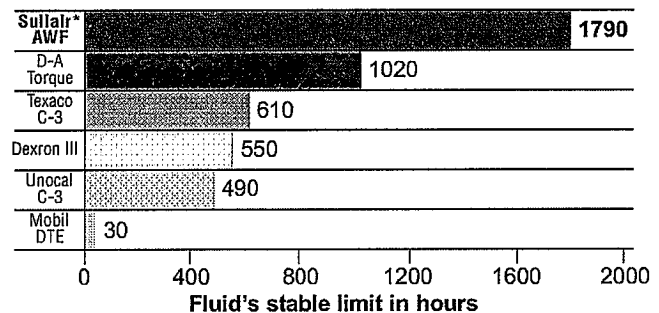
In order to prevent degradation and varnishing, a compressor fluid needs high oxidation resistance. This can be most accurately tested in actual compressor operation.

To accelerate test time, Sullair runs various fluids through a compressor in a "hot room", where oxidation rates are increased from four to eight times, cutting fluid service life by 75%.

To determine the oxidation rate, Sullair constantly monitors the fluids and measures the increase in viscosity. The relative degree of oxidation is measured by infrared analysis. Tests run until the fluids reach an oxidation break point, resulting in rapid, uncontrolled viscosity increase. The chart shows how viscosity increases as a result of oxidation.

#### Fluid Life Test Summary

230 ±°F/100 psig/No make-up fluid added



Some of the fluids subjected to hot room testing show rapid viscosity increase almost immediately. These fluids always fail in less than 200 hours.

\* The Sullair air end is warranted for 5 years or 10,000 hours, whichever occurs first when Sullair AWF fluid and genuine Sullair filters are used according to Sullair's recommendations.

\*\* Dexron III used for comparison purposes only, not recommended for use in Sullair compressors.

Sullair AWF exhibits extraordinary viscosity stability and oxidation resistance, lasting several times longer than typical petroleum fluids. Based on these findings, Sullair recommends AWF for compressor drain periods, up to four times that of other petroleum fluids. Fewer changeouts mean less downtime and lower maintenance costs.

### Compressor System Protection

AWF is designed to protect against oxidation contaminants in the intake air, which can cause rust and corrosion to the compressor's internal surfaces.

Because special additives are incorporated into the AWF formulation, contaminants are dissolved or suspended before they can form harmful deposits in the system.

A special benefit of the additive in AWF is the neutralizing of acidic pollutants found in the air of industrialized environments. When neutralized, the acids cannot attack metal surfaces or compressor fluids; therefore compressor life is extended.

### Elastomer Compatibility

AWF is designed to be chemically compatible with the elastomers used in Sullair compressor DOD rings and seals. Because not all fluids are compatibly designed, the mixing of AWF and other oils or lubricants is not recommended.

### Air/Fluid Separation

Sullair's AWF is a carefully balanced composition designed to maximize air/fluid separation and limit fluid carryover. Fluid properties are matched with materials and design configurations in the air/fluid separator. No other fluid can offer this balance of properties and design considerations.

### Water Tolerance

AWF has a superior tolerance for water, allowing for easy separation. In any climate, any weather, an air compressor draws in water vapor with the air and condenses it into water during the compression cycle. For example, at 24°C (75°F) and 75% relative humidity, a 125 cfm portable compressor can inhale six gallons of water in a single shift. With this potential for water accumulation, good separation capability is essential to prolonged fluid life.

### Typical Properties of AWF\*:

SAE Viscosity Grade	5W-20
Viscosity @ 100°C cSt	7.1
Viscosity @ 40°C cSt	35.0
Viscosity index	172
Pour point. °F	-40
Flash point. °F	395
Cold Cranking Viscosity.	
ASTM D2602 @ -25°C CP	1900
Fluid Shear Stability Test.	
ASTM D3945 % Viscosity Loss After 30 Cycles	5.2
High Temperature/High Shear	
ASTM D4683 % Viscosity Loss	4.2

### \*Recommended change interval AWF

Ambient temp. Range is -29°C to 49°C (-20°F to 120°F)

7 bar (100 psi) to 12 bar (175 psi): 1000-1200 hours

17 (246) to 21 bar (300 psi): 600 hours

24 bar (350 psi): 500 hours

\*\*Not to be considered as sales specifications. Intervals can vary according to ambient conditions.

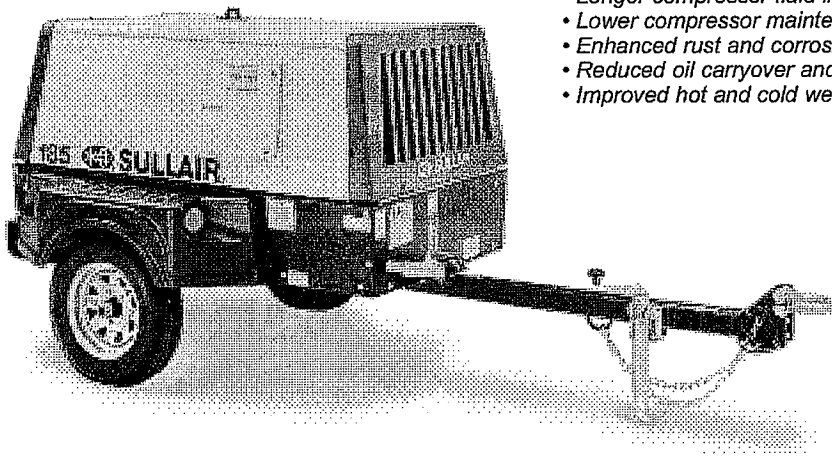
### Sullair AWF PIN:

02250098-048: 4 Pack/1 Gallon  
 250030-757: 5 Gallon Pail  
 250030-758: 55 Gallon Drum  
 250038-782: Skid 32/5 Gallon  
 250025-266: Bulk (See Parts Bulletin #104)



### THE ADVANTAGES OF USING AWF!

- Longer compressor life
- Longer compressor fluid life\*\*
- Lower compressor maintenance costs
- Enhanced rust and corrosion protection
- Reduced oil carryover and fluid loss
- Improved hot and cold weather lubrication



**SULLAIR**

www.sullair.com

SULLAIR CORPORATION 3700 East Michigan Blvd., Michigan City, IN 46360 Phone: 1-800-SULLAIR

SSL-10014 4/06/5 Printed IN U.S.A. Copyright 2006 Sullair Corporation. All rights reserved. Specifications subject to change without notice.



**Material Safety Data Sheet  
For  
Portland Cement**

**Section I - Identity**

**Manufacturer's name and address:** Ash Grove Cement Company 11011 Cody Overland Park, KS 66210

**Emergency Telephone Number:** (913) 451-8900

**Chemical Name and Synonyms:** Portland Cement (CAS #65997-15-1)

**Trade Name and Synonyms:** Type I, IA, II, III, V

**Revision Date:** August 2004 (This revision supercedes all previous versions)

**Chemical Family:** Calcium Salts

**Formula:** Portland cement consists of finely ground portland cement clinker mixed with a small amount of calcium sulfate (gypsum) to control set. No specific formula applies to portland cement.

**Section II - Hazardous Ingredients**

**Ingredients:** Substances similar to the following are known to be present in portland cement:

3CaO.SiO<sub>2</sub> (CAS # 12168-85-3)  
2CaO.SiO<sub>2</sub> (CAS # 10034-77-2)  
3CaO.Al<sub>2</sub>O<sub>3</sub> (CAS # 12042-78-3)  
4CaO.Al<sub>2</sub>O<sub>3</sub>.Fe<sub>2</sub>O<sub>3</sub> (CAS # 12068-35-8)  
CaSO<sub>4</sub>.XH<sub>2</sub>O (CAS # 13397-24-5)

Small amounts of CaO, MgO, K<sub>2</sub>SO<sub>4</sub>, Na<sub>2</sub>SO<sub>4</sub> may also be present.

**Hazardous Components(s):**

Substance	CAS Number	OSHA PEL	ACGIH TLV-TWA	MSHA Exposure Limits
Portland Cement – total dust	65997-15-1	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> (1986) *	10 mg/m <sup>3</sup>
Portland Cement - respirable dust	65997-15-1	5 mg/m <sup>3</sup>	Not Applicable	Not Applicable
Quartz	14808-60-7	<u>10 mg/m<sup>3</sup></u> (% silica + 2)	0.05 mg/m <sup>3</sup> (2000) (respirable fraction)	<u>10 mg/m<sup>3</sup></u> (% silica + 2)

**Note:** Some portland cements may contain small amounts of crystalline silica (slightly more than 0.1%).  
\* Applicable if <1% crystalline silica is present.

---

### Section III - Physical Data

---

**Boiling Point:** Not applicable.

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not applicable.

**Solubility in Water:** Slight (0.1-1.0%)

**pH (in water) (ASTM D 1293-95):** 12 - 13

**Specific Gravity:** (H<sub>2</sub>O=1) 2.9 - 3.1

**Evaporation Rate:** Not applicable.

**Appearance and Odor:** Gray powder; no odor.

**Melting Point:** Not applicable

---

### Section IV - Fire and Explosion Hazard Data

---

**Flash Point:** Portland cement is noncombustible and not explosive.

**Flammable or Explosive Limits:** Not applicable.

**Extinguishing Media:** Not applicable

**Special Firefighting Procedures:** Not applicable. (Although portland cement poses no fire-related hazards, a self-contained breathing apparatus is recommended to limit exposure to combustion products when fighting any fire.)

**Unusual Fire and Explosion Hazards:** Not applicable.

**Lower Explosive Limit:** Not applicable.

**Upper Explosive Limit:** Not applicable.

---

### Section V - Health Hazard Data

---

**Acute Effects:** Wet cement on unprotected skin, whether direct or through saturated clothing, can cause severe, third degree caustic burns. **NOTE: Portland cement burns skin with little warning; discomfort or pain cannot be relied upon to alert a person to a hazardous skin exposure. The severity of the burn may not be detected until several hours after the damage begins.** Dry portland cement can produce mild irritation to severe burns of the eye; it can irritate the upper respiratory system.

**Chronic Effects:** Dry portland cement can cause inflammation of the lining of the nose and the cornea. Repeated exposure to portland cement may result in drying of the skin and may lead to thickening, cracking, or fissuring of the skin. Hypersensitive individuals may develop an allergic dermatitis (possibly due to trace amounts of hexavalent chromium at less than 0.005%). This reaction may appear in several forms including a mild rash to severe skin ulcers. Persons already sensitized may react to their first contact with the product. Other persons may experience this effect after years of exposure to portland cement products.

While portland cement typically has less than 0.2% crystalline silica, other additives to portland cement and those components (e.g. aggregates) added to produce portland cement concrete may significantly increase the amount of crystalline silica that is present. Exposure to respirable crystalline silica without the use of a respirator can cause silicosis and may aggravate other lung conditions.

**Signs and Symptoms of Exposure:** Burning sensation around moist tissue areas (i.e., eyes, nose, upper respiratory system); painful burning on exposed skin that can develop with little warning. **Exposure of sufficient duration to wet portland cement can cause serious, potentially irreversible tissue (skin or eye) destruction in the form of chemical (caustic) burns, including third degree burns.** The same kind of destruction can occur if wet or moist areas of the body are exposed for sufficient duration to dry portland cement. **DO NOT ALLOW WET PORTLAND CEMENT TO GET INSIDE BOOTS, SHOES, OR GLOVES AND DO NOT ALLOW WET, SATURATED CLOTHING TO REMAIN AGAINST THE SKIN.**

**Medical Conditions Generally Aggravated by Exposure:** Pre-existing skin conditions may be worsened. Silicosis may aggravate other chronic pulmonary conditions and may increase the risk of pulmonary tuberculosis infection.

**Chemical Listed as Carcinogenic or Potential Carcinogen:** Portland cements are not considered carcinogenic.

However, the International Agency for Research on Cancer (IARC) has determined, primarily through animal studies, that silica is a known human carcinogen. The National Toxicology Program (NTP) has characterized respirable quartz silica as reasonably anticipated to be a carcinogen. OSHA does not regulate silica as a carcinogen.

**Emergency and First Aid Procedures:** Irrigate eyes immediately and repeatedly with large amount of clean water for at least 15 minutes and get prompt medical attention. Wash exposed skin areas with pH-neutral soap and clean water. Apply sterile dressings; seek medical treatment in all cases of prolonged exposure to wet portland cement, portland cement mixtures, liquids from fresh portland cement products, or prolonged wet skin exposure to dry portland cement. If ingested, consult a physician immediately. Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately. In the event of inhalation, remove to fresh air. Seek medical attention if coughing and other symptoms do not subside. Inhalation of gross amounts of portland cement requires immediate medical attention.

---

### Section VII-Reactivity Data

---

**Stability:** Product is stable. Keep dry until used.

**Incompatibility:** Aluminum powder and other alkali and alkaline earth elements will react in wet mortar or concrete, liberating hydrogen gas. Portland cement is highly alkaline and will react with acids to produce a violent, heat-generating reaction. Toxic gases or vapors may be given off depending on the acid involved.

**Hazardous Decomposition Products:** None

**Hazardous Polymerization:** Will not occur.

---

### Section VII - Spill Procedures

---

**Steps to be taken in case material is spilled:** Use dry cleanup methods that do not disperse the dust into the air. Avoid breathing the dust. Emergency procedures are not required.

**Disposal Method:** Small amounts of material can be returned to the container for later use if it is not contaminated. Dispose of waste material in accordance with Federal, State and local requirements. Portland cement is not a hazardous waste as defined by the Resource Conservation and Recovery Act (40 CFR 261).

---

### Section VIII - Special Protection Information

---

**Respiratory Protection:** Avoid actions that cause dust to become airborne. Use local or general ventilation to control exposures below applicable exposure limits.

Use NIOSH/MSHA-approved (under 30 CFR 11) or NIOSH-approved (under 42 CFR 84) respirators in poorly ventilated areas, if an applicable exposure limit is exceeded, or when dust causes discomfort or irritation. (Advisory: Respirators and filters purchased after July 10, 1998 must be certified under 42 CFR 84.)

**Ventilation:** Local exhaust can be used to control airborne dust levels.

**Eye Protection:** When engaged in activities where portland cement dust or wet portland cement or concrete could contact the eye, wear goggles or safety glasses with sideshields. In extremely dusty environments and unpredictable environments, wear unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when working with portland cement or wet portland cement products.

**Skin Protection:** Prevention is essential to avoiding potentially severe skin injury. Avoid contact with unhardened (wet) portland cement products. If contact occurs, promptly wash affected area with soap and water. **DO NOT ALLOW WET PORTLAND CEMENT TO GET INSIDE BOOTS, SHOES, OR GLOVES AND DO NOT ALLOW WET, SATURATED CLOTHING TO REMAIN AGAINST THE SKIN.**

Do not rely on barrier creams; barrier creams should not be used in place of gloves. Use impervious, abrasion- and alkali-resistant gloves, boots and protective clothing to protect the skin from prolonged contact with wet portland cement in plastic concrete, mortar or slurries.

**Work/Hygienic Practices:** Periodically wash areas contacted by dry portland cement or by wet portland cement or concrete fluids with a pH neutral soap and clean, uncontaminated water. Wash again at the end of the work. If irritation occurs, immediately wash the affected area and seek treatment. If clothing becomes saturated with wet portland cement or concrete, it should be removed and replaced with clean dry clothing. Follow listed precautions as appropriate during repair or maintenance work on contaminated equipment.

---

## Section IX – Transportation Information

---

**Hazardous materials/proper shipping name description:**

Portland cement is not hazardous under U.S. Department of Transportation (DOT) regulations.

**Hazard class:**

Not applicable

**Identification number:**

Not applicable

**Required label text:**

Not applicable

**Hazardous substances / reportable quantities (RQ)**

Not applicable

---

## Section X – Other Regulatory Information

---

**Status under USDOL-OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Portland cement is considered a “hazardous chemical” under this regulation and should be a part of any Hazard Communication Program.

**Status under CERCLA / Superfund 40 CFR 117 and 302**

Not listed.

**Status under SARA (Title III), Sections 311 and 312**

Portland cement qualifies as a “hazardous substance” with delayed health effects.

**Status under SARA (Title III), Section 313**

This product may contain constituents listed under SARA (Title III) Section 313, but not in amounts requiring supplier notification under 40 CFR Part 372 Subpart C.

**Status under TSCA (as of May 1997)**

Portland cement and some of the substances in portland cement are on the TSCA inventory list.

**Status under the Federal Hazardous Substances Act**

Portland cement is a “hazardous substance” subject to statutes promulgated under the subject act.

**Status under California Proposition 65**

This product contains crystalline silica and chemicals (trace metals) known to the State of California to cause cancer, birth defects or other reproductive harm. California law requires the above warning in the absence of definitive testing to prove the defined risks do not exist.

**Status under the Canadian Environmental Protection Act**

Not listed.



### **Status under WHMIS**

Portland cement is considered to be a hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations (Class E – Corrosive Material) and is therefore subject to the labeling and MSDS requirements of the Workplace Hazardous Materials Information System (WHMIS).

### **Other Important Information**

Portland cement should only be used by knowledgeable persons. A key to using the product safely requires the user to recognize that portland cement reacts with water, and that some of the intermediate products of this reaction (that is, those present while portland cement is “setting”) pose a far more severe hazard than does portland cement itself.

While the information provided in this material safety data sheet is thought to provide a useful summary of the hazards of portland cement as it is commonly used, the sheet cannot anticipate and provide all the information that might be needed in every situation. Inexperienced product users should obtain training before using this product.

In particular, the data provided in this sheet do not address hazards that may be posed by other materials that may be added to portland cement to produce portland cement products. Users should review other relevant material safety data sheets before working with this portland cement or on portland cement products, for example portland cement concrete.

**SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY ASH GROVE CEMENT COMPANY**, except that the product shall conform to contracted specifications. The information provided herein was believed by Ash Grove Cement Company to be accurate at the time of preparation or prepared by sources by believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe use and handling of product and to determine the suitability of the product for its intended use.

This product neither contains nor is directly manufactured with any controlled ozone depleting substances, Class I and II.



**MATERIAL SAFETY DATA SHEET  
3912 THREAD & TOOL JOINT COMPOUND**

**Section 1: Chemical Product and Company Information**

Manufactured by:  
BioBlend Lubricants Int'l, Inc.  
744 Foster Avenue  
Bensenville, IL 60106  
866-834-2001

Emergency Transportation Contact:  
Chemtrec 1-800-424-9300  
Health Emergency: Contact the Local Poison Control Center

PRODUCT NAME: BIOBLEND 3912 Biodegradable Thread & Tool Joint Compound

CAS #:	Mixture	Health	HMIS	NFPA
PREP DATE:	11/22/2001	Flammability	0	0
REV DATE:	10/03/2002	Reactivity	1	1
		Notes: [PPE]	0	0
			B	B

**Section 2: Composition/Information on Ingredients**

Ingredient	CAS#	Weight%	TLV	OSHA PEL	ACGIH STEL
Vegetable Oil	120962-03-0	60-65%	N/A <sup>1</sup>	N/A	N/A
Silicon Dioxide	68811-44-9	9-11%	N/A	N/A	N/A
Proprietary EP Anti-Wear , Anti-oxidant & Rust Inhibitor Additive	Mixture	20-30%	N/A	N/A	N/A

**Section 3: Hazards Identification**

General: This product is generally not hazardous to humans, animals or the environment when used as intended.

**Symptoms of Overexposure (acute):**

Eye Contact: May cause eye irritation  
 Skin Contact: May cause skin irritation  
 Inhalation (Breathing): May be harmful if inhaled  
 Ingestion (Swallowing): May cause stomach ache

**Section 4: First Aid Measures**

Eye: Flush with clean water for 15 minutes. Get medical attention.  
 Skin: Wash with soap and water. Remove contaminated clothes. Discard shoes and leather apparel. Get medical attention if irritation persists.  
 Inhalation: Remove to fresh air. If breathing is labored, administer oxygen. If breathing has stopped, administer artificial respiration. If irritation persists, get medical attention.  
 Ingestion: DO NOT induce vomiting. If conscious give two glasses of water. Get medical attention.  
 Other (Note to Physician): Treat symptomatically.

**Section 5: Fire Fighting Measures**

Flash Point Typical: (COC) >500°F

Flammability Limits:  
Upper: N/A Lower: N/A

Extinguishing Media: CO2, dry chemical or foam. Water can be used to cool and protect exposed material.  
 Special Firefighting Procedures: Recommend using self-contained breathing apparatus. Water may cause splattering. Material will float.  
 Unusual Fire & Explosion Hazards: Containers may rupture.  
 Auto Ignition Temperature: N/A  
 Explosion Data: Material does not have explosive properties.  
 Combustion Products: Fumes, smoke, carbon monoxide, sulfur oxides and other decomposition products, in the case of incomplete combustion

**Section 6: Accidental Release Measures**

Spill Procedures: Evacuate all non-essential personnel. Personal protective equipment (see section 8) must be worn. Remove sources of ignition. Ventilate spill area. Prevent entry into sewers and waterways. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Check under Transportation and Labeling (DOT/CERCLA) and other regulatory information section (SARA) for hazardous substances to determine regulatory reporting requirements for spills.

<sup>1</sup> N/A = Not Available



**MATERIAL SAFETY DATA SHEET  
3912 THREAD & TOOL JOINT COMPOUND**

**Section 7: Handling and Storage**

**Handling Procedures:**

Keep away from potential sources of ignition. Open container in a well ventilated area. Avoid breathing vapors. Keep containers closed when not in use. Wash thoroughly after handling. Empty containers retain material residue. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, spark or other sources of ignition.

**Storage Procedures:**

Do not store near potential sources of ignition. Store in a well ventilated area.

**Section 8: Exposure Controls, Personal Protection**

**Ventilation Procedures:**

Use local exhaust ventilation to control mists or vapors. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits.

**Gloves:**

Use chemical resistant gloves.

**Eye Protection:**

Safety glasses with side shields, Chemical goggles or face shields

**Respiratory Protection:**

Use NIOSH/MSHA approved full-face respirator if concentration is above recommended levels (section 2). For confined space entry use self contained breathing apparatus.

**Clothing Recommendation:**

Long sleeved shirt and long pants are recommended. Wear chemical protective apron when potential contact with material exists. Use chemical resistant boots to avoid contaminating shoes. Do not wear jewelry or watches that may trap fluid against skin.

**Section 9: Physical and Chemical Properties**

Vapor pressure: N/A  
Solubility in water: Nil  
Specific Gravity: ~ 0.90

Odor: Mild odor  
Appearance: White Grease

**Section 10: Stability and Reactivity**

**Stability:**

Stable under normal storage and handling conditions.

**Incompatibility:**

Reactive with strong oxidizing agents

**Hazardous Polymerization:**

Will not occur under normal handling conditions

**Hazardous Decomposition:**

Product does not decompose at ambient temperatures

**Section 11: Toxicology Information**

**ACUTE AND CHRONIC EXPOSURE**

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

**Section 12: Ecological Information**

**ENVIRONMENTAL TOXICITY**

No definitive information available on environmental impact if product is released to the environment. This product is >95% biodegradable

**Section 13: Disposal Considerations**

**Waste disposal:** This material, if discarded, is not a hazardous waste under RCRA Regulation 40 CFR 261.

**Section 14: Transportation Information**

U.S.DOT Not regulated by DOT as a hazardous material

**Section 15: Regulatory Information**

**US TSCA Inventory:**

All components of this product are listed on the TSCA inventory.

**SARA Extremely Hazardous Substances:**

Not listed as such

**SARA Section 313:**

Does not contain any 313 ingredients.

**CERCLA Hazardous Substances**

No reportable quantity for this product or its components.

**California Proposition 65:**

Not listed

**Section 16: Other Information**

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of BioBlend Lubricant's knowledge; however, BioBlend makes no warranty whatsoever, expressed or implied of merchantability or fitness for the particular purpose, regarding the accuracy of such data or the results to be obtained from the use thereof. BioBlend assumes no responsibility for injury to recipient or to third persons or for any damage to property and recipient assumes all such risks.

VALVOLINE® HYDRO-LUBE SAE  
80W-90 GEAR OIL  
VV535

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone	1-800-ASHLAND (1-800-274-5263)
Product name	VALVOLINE® HYDRO-LUBE SAE 80W-90 GEAR OIL	
Product code	VV535	
Product Use Description	No data	

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

Appearance: liquid

CAUTION! MAY BE HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.

**Potential Health Effects**

**Routes of exposure**

Skin contact, Ingestion, Eye Contact, Inhalation

**Eye contact**

Unlikely to cause eye irritation or injury.

**Skin contact**

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns.

**Ingestion**

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

**Inhalation**

VALVOLINE® HYDRO-LUBE SAE  
80W-90 GEAR OIL  
VV535

It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

**Aggravated Medical Condition**

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions)

**Symptoms**

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), Abdominal pain

**Target Organs**

No data

**Carcinogenicity**

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

**Reproductive hazard**

There are no data available for assessing risk to the fetus from maternal exposure to this material.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Components</b>	<b>CAS-No.</b>	<b>Concentration</b>
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	>=70-<80%
PETROLEUM DISTILLATE	NJTS# 800986-5245P	>=15-<20%

**4. FIRST AID MEASURES**

VALVOLINE® HYDRO-LUBE SAE  
80W-90 GEAR OIL  
VV535

**Eyes**

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

**Skin**

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

**Ingestion**

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

**Inhalation**

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

**Notes to physician**

**Hazards:** No information available.

**Treatment:** No information available.

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Water spray, Dry powder, Foam, Carbon dioxide (CO<sub>2</sub>)Foam, Carbon dioxide (CO<sub>2</sub>), Dry chemicalFoam, Carbon dioxide (CO<sub>2</sub>), Dry chemical

**Hazardous combustion products**

May form:, carbon dioxide and carbon monoxide, oxides of sulfur, nitrogen and phosphorus, various hydrocarbons

**Precautions for fire-fighting**

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). DO NOT direct a solid stream of water or foam into hot, burning pools of liquid since this may cause frothing and increase

VALVOLINE® HYDRO-LUBE SAE  
80W-90 GEAR OIL  
VV535

fire intensity. Frothing can be violent and possibly endanger any firefighter standing too close to the burning liquid.

**Flammability Class for Flammable Liquids**  
Combustible Liquid Class IIIB

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

For personal protection see section 8. Spills of this material are very slippery.

**Environmental precautions**

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

**Methods for cleaning up**

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

**Other information**

Notify the proper authorities as required that a spill has occurred. Comply with all applicable federal, state, and local regulations. Contaminated surfaces will be extremely slippery.

**7. HANDLING AND STORAGE**

**Handling**

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

**Storage**

Store in a cool, dry, ventilated area.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

VALVOLINE® HYDRO-LUBE SAE  
80W-90 GEAR OIL  
VV535

### Exposure Guidelines

**DISTILLATES (PETROLEUM),  
SOLVENT-DEWAXED HEAVY  
PARAFFINIC** **64742-65-0**

---

OSHA Z1	Permissible exposure limit	500 ppm	
OSHA Z1	Permissible exposure limit	2,000 mg/m3	
OSHA Z1A	time weighted average	400 ppm	
OSHA Z1A	time weighted average	1,600 mg/m3	
US CA OEL	Time Weighted Average (TWA)	400 ppm	
US CA OEL	Permissible Exposure Limit (PEL):		
	Time Weighted Average (TWA)	1,600 mg/m3	
ACGIH	time weighted average	5 mg/m3	Mist.
ACGIH	Short term exposure limit	10 mg/m3	Mist.
ACGIH NIC	time weighted average	0.2 mg/m3	Inhalable fraction.

### General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

### Exposure controls

Not required under normal conditions of use. However, if unusual operating conditions exist, then provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below PEL/TLV(s).

### Eye protection

Not required under normal conditions of use. However, if misting or splashing conditions exist, then safety glasses or chemical splash goggles are advised.

### Skin and body protection

Not normally required. However, wear resistant gloves such as nitrile rubber to prevent irritation which may result from prolonged or repeated skin contact with product. Wear normal work clothing covering arms and legs.

### Respiratory protection



VALVOLINE® HYDRO-LUBE SAE  
80W-90 GEAR OIL  
VV535

Not required under normal conditions of use. However, if oil mists are generated above recommended PEL/TLV of 5 mg/m<sup>3</sup>, then a NIOSH-approved respirator is advised in absence of proper environmental control. (See your industrial hygienist.)

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	liquid
<b>Form</b>	No data
<b>Colour</b>	No data
<b>Odour</b>	No data
<b>Boiling point/boilingrange</b>	218.33 °C / 424.99 °F @ 1,013.33 hPa
<b>pH</b>	No data
<b>Flash point</b>	419.9 °F / 215.5 °C
<b>Evaporation rate</b>	No data
<b>Explosion limits</b>	1 %(V) 6 %(V)
<b>Vapour pressure</b>	0.01 hPa @ 70.00 °F / 21.11 °C
<b>Vapour density</b>	No data
<b>Density</b>	0.8911 g/cm <sup>3</sup> @ 60.01 °F / 15.56 °C
	No data
<b>Solubility</b>	No data
<b>Partition coefficient: n-octanol/water</b>	No data
<b>Autoignition temperature</b>	No data

## 10. STABILITY AND REACTIVITY

### Stability

Stable

### Conditions to avoid

Avoid contact with:, excessive heat

### Incompatible products

Avoid contact with:, strong oxidizing agents

### Hazardous decomposition products

May form:, carbon dioxide and carbon monoxide, oxides of sulfur, nitrogen and phosphorus, various hydrocarbons

VALVOLINE® HYDRO-LUBE SAE  
80W-90 GEAR OIL  
VV535

**Hazardous reactions**

No data

**Thermal decomposition**

No data

**11. TOXICOLOGICAL INFORMATION**

**Acute oral toxicity**

DISTILLATES (PETROLEUM),  
HYDROTREATED HEAVY  
PARAFFINIC LD 50 Rat: > 15 g/kg

PETROLEUM DISTILLATE LD 50 Rat: > 5,000 mg/kg

**Acute inhalation toxicity**

**Acute dermal toxicity**

DISTILLATES (PETROLEUM),  
HYDROTREATED HEAVY  
PARAFFINIC LD 50 Rabbit: > 5 g/kg

PETROLEUM DISTILLATE LD 50 Rabbit: > 5,000 mg/kg

**12. ECOLOGICAL INFORMATION**

**Aquatic toxicity**

**Acute and Prolonged Toxicity to Fish**

No data

**Acute Toxicity to Aquatic Invertebrates**

No data

**Environmental fate and pathways**

VALVOLINE® HYDRO-LUBE SAE  
80W-90 GEAR OIL  
VV535

No data

### 13. DISPOSAL CONSIDERATIONS

#### Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

### 14. TRANSPORT INFORMATION

Dangerous goods descriptions (if indicated above) may not reflect package size, quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

### 15. REGULATORY INFORMATION

**SARA Hazard Classification** Acute Health Hazard

#### SARA 313 Component(s)

	<b>Health</b>	<b>Flammability</b>	<b>Reactivity</b>	<b>Other</b>
<b>HMIS</b>	1*	1	0	
<b>NFPA</b>	1	1	0	

### 16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

**ASHLAND**  
**SAFETY DATA SHEET**

VALVOLINE® HYDRO-LUBE SAE  
80W-90 GEAR OIL  
VV535

Page: 9  
Revision Date: 01/24/2008  
Print Date: 3/13/2008  
MSDS Number: R0173350  
Version: 1.5