### SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Product information**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Philflo® High Viscosity (HV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>1119709, 1119708, 1119707, 1119706, 1119705, 1119704, 1117422, 1112368, 1112042, 1111164, 1107358, 1106616</td>
</tr>
</tbody>
</table>

**Company**

Chevron Phillips Chemical Company LP  
Mining Chemicals  
10001 Six Pines Drive  
The Woodlands, TX 77380

**Emergency telephone:**

**Health:**  
866.442.9628 (North America)  
1.832.813.4984 (International)

**Transport:**  
CHEMTREC 800.424.9300 or 703.527.3887(int'l)

Asia: +800 CHEMCALL (+800 2436 2255) China:+86-21-22157316  
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)  
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

**Responsible Department:**  
Product Safety and Toxicology Group

**E-mail address:**  
SDS@CPChem.com

**Website:**  
www.CPChem.com

### SECTION 2: Hazards identification

**Classification of the substance or mixture**

This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

**Emergency Overview**

<table>
<thead>
<tr>
<th>Danger</th>
<th>Physical state: Liquid</th>
<th>Color: dark, Black</th>
<th>Odor: Pungent, petroleum</th>
</tr>
</thead>
</table>

OSHA Hazards:  
Combustible Liquid, Harmful by inhalation., Moderate skin irritant, Teratogen, Reproductive hazard

**Classification**

Flammable liquids, Category 4

SDS Number:1000000014971
Philflo® High Viscosity (HV)

Acute toxicity, Category 4, Inhalation
Skin irritation, Category 2
Carcinogenicity, Category 1B
Reproductive toxicity, Category 2
Specific target organ systemic toxicity - repeated exposure, Category 2, Blood, Liver, thymus gland

Labeling

Symbol(s) : Danger

Signal Word : Danger

Hazard Statements : H227: Combustible liquid.
H302 + H332: Harmful if swallowed or if inhaled.
H315: Causes skin irritation.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to organs (Blood, Liver) through prolonged or repeated exposure.

Precautionary Statements : Prevention:
P201 Obtain special instructions before use.
P210 Keep away from heat/sparks/open flames/hot surfaces.
No smoking.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ eye protection/ face protection.
P281 Use personal protective equipment as required.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P330 Rinse mouth.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity:

IARC Group 2B: Possibly carcinogenic to humans
Decant (clarified) Oils 64741-62-4
Light Cycle Oil 64741-59-9
NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
SAFETY DATA SHEET

Philflo® High Viscosity (HV)

Version 2.11  Revision Date 2016-06-16

ACGIH
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

SECTION 3: Composition/information on ingredients

Synonyms: Extender Oil, Potash Extender Oil, Phosphate Extender Oil
Philflo® Extender Oil HV

Molecular formula: Mixture

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decant (clarified) Oils</td>
<td>64741-62-4</td>
<td>0 - 100</td>
</tr>
<tr>
<td>Light Cycle Oil</td>
<td>64741-59-9</td>
<td>0 - 100</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

General advice: Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.

If inhaled: Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.

In case of skin contact: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact: Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed: Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5: Firefighting measures

Flash point: 65.5 °C (149.9 °F)
Method: ASTM D 93

Autoignition temperature: No data available

Suitable extinguishing media: Carbon dioxide (CO2).

Unsuitable extinguishing media: High volume water jet.

Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

Special protective: Wear self-contained breathing apparatus for firefighting if
equipment for fire-fighters necessary.

Further information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.

Fire and explosion protection: Do not spray on an open flame or any other incandescent material. Keep away from open flames, hot surfaces and sources of ignition.

SECTION 6: Accidental release measures

Personal precautions: Use personal protective equipment. Ensure adequate ventilation.

Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Handling

Advice on safe handling: Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion: Do not spray on an open flame or any other incandescent material. Keep away from open flames, hot surfaces and sources of ignition.

Storage

Requirements for storage areas and containers: No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
SECTION 8: Exposure controls/personal protection

Engineering measures
Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), 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.

Personal protective equipment

Respiratory protection: Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Organic Vapors. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

Hand protection: The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection: Eye wash bottle with pure water. Tightly fitting safety goggles.

Skin and body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate: Flame retardant protective clothing. Footwear protecting against chemicals.

Hygiene measures: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance
Physical state: Liquid
Color: dark, Black
Odor: Pungent, petroleum

Safety data
Flash point: 65.5 °C (149.9 °F)
Method: ASTM D 93
**Philflo® High Viscosity (HV)**

### Lower explosion limit
- 0.3 % (V)

### Upper explosion limit
- 7 % (V)

### Oxidizing properties
- No

### Autoignition temperature
- No data available

### Molecular formula
- Mixture

### Molecular weight
- Not applicable

### pH
- Not applicable

### Pour point
- -12 °C (10 °F)
  - Method: D5949

### Boiling point/boiling range
- 79 - 579 °C (174 - 1,074 °F)
  - Method: ASTM D 86

### Vapor pressure
- 1.00 MMHG
  - estimated

### Density
- 8.54 L/G

### Bulk density
- 8.62 L/G

### Water solubility
- Negligible

### Partition coefficient: n-octanol/water
- No data available

### Viscosity, kinematic
- 72 cSt
  - at 40 °C (104 °F)

### Relative vapor density
- 1
  - (Air = 1.0)

### Evaporation rate
- 1

---

**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.

**Possibility of hazardous reactions**

**Conditions to avoid**
- Heat, flames and sparks.

**Other data**
- No decomposition if stored and applied as directed.
| **Philflo® High Viscosity (HV)** | **Acute oral toxicity** | LD50: 3,167 mg/kg  
Method: Acute toxicity estimate |
| **Philflo® High Viscosity (HV)** | **Acute inhalation toxicity** | LC50: 4.36 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Acute toxicity estimate |
| **Philflo® High Viscosity (HV)** | **Acute dermal toxicity** | LD50: > 2,000 mg/kg  
Method: Acute toxicity estimate |
| **Philflo® High Viscosity (HV)** | **Skin irritation** | May cause skin irritation in susceptible persons. |
| **Philflo® High Viscosity (HV)** | **Eye irritation** | Vapors may cause irritation to the eyes, respiratory system and the skin. |
| **Sensitization** | Decant (clarified) Oils | Did not cause sensitization on laboratory animals. |
| **Sensitization** | Light Cycle Oil | Did not cause sensitization on laboratory animals. |
| **Repeated dose toxicity** | Decant (clarified) Oils | Species: Rat  
Application Route: Dermal  
Dose: 0, 8, 30, 125, 500 mg/kg  
Exposure time: 13 wk  
Lowest observable effect level: 8 mg/kg  
Target Organs: Liver |
| **Repeated dose toxicity** | Light Cycle Oil | Species: Rat, males  
Sex: males  
Application Route: Dermal  
Dose: 0, 8, 25, 125, 500, 1250 mg/kg  
Exposure time: 90 day  
Number of exposures: 5 days/wk  
NOEL: 25 mg/kg  
Target Organs: Blood, Liver, Thymus |
### Species: Rat, females
### Sex: females
### Application Route: Dermal
### Dose: 0, 8, 25, 125, 500, 1250 mg/kg
### Exposure time: 90 day
### Number of exposures: 5 days/wk
### NOEL: 125 mg/kg
### Target Organs: Blood, Liver, Thymus

#### Reproductive toxicity

**Decant (clarified) Oils**: Suspected of damaging fertility or the unborn child.

#### Developmental Toxicity

**Decant (clarified) Oils**: Species: Rat  
Application Route: Dermal  
Dose: 0, 0.5, 1, 10, 50, 250 mg/kg  
Exposure time: 6h/d  
Number of exposures: daily  
Test period: GD 0-19  
NOAEL Teratogenicity: 0.05 mg/kg  
NOAEL Maternal: 0.05 mg/kg  
Suspected of damaging fertility or the unborn child.

**Light Cycle Oil**:  
Species: Rat  
Application Route: Dermal  
Dose: 1, 50, 250 mg/kg/d  
Number of exposures: once daily  
Test period: GD 0-19  
Method: OECD Guideline 414  
NOAEL Teratogenicity: 1 mg/kg  
NOAEL Maternal: 1 mg/kg  

#### Philflo® High Viscosity (HV) Aspiration toxicity

May be fatal if swallowed and enters airways.

#### CMR effects

**Decant (clarified) Oils**: Carcinogenicity: Possible human carcinogen  
Reproductive toxicity: Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

**Light Cycle Oil**: Carcinogenicity: Possible human carcinogen

#### Philflo® High Viscosity (HV) Further information

Solvents may degrease the skin.

---

## SECTION 12: Ecological information

### Toxicity to fish

**Decant (clarified) Oils**: LL50: 79 mg/l  
Exposure time: 96 h  
semi-static test Method: OECD Test Guideline 203

---
Information given is based on data obtained from similar substances.

**Light Cycle Oil**
- LL50: > 0.3 mg/l
- Exposure time: 96 h
- Species: Oncorhynchus mykiss (rainbow trout)
- semi-static test Method: OECD Test Guideline 203

### Toxicity to daphnia and other aquatic invertebrates

**Decant (clarified) Oils**
- EL50: 0.22 mg/l
- Exposure time: 48 h
- Species: Daphnia magna (Water flea)
- static test Method: OECD Test Guideline 202

**Light Cycle Oil**
- EL50: 0.32 mg/l
- Exposure time: 48 h
- Species: Daphnia magna (Water flea)
- Immobilization Method: OECD Test Guideline 202

### Toxicity to algae

**Decant (clarified) Oils**
- EL50: 0.32 mg/l
- Exposure time: 72 h
- static test Method: OECD Test Guideline 201

**Light Cycle Oil**
- EL50: 0.51 mg/l
- Exposure time: 72 h
- Species: Pseudokirchneriella subcapitata (green algae)
- Growth inhibition Method: OECD Test Guideline 201

### M-Factor
- Clarified oils (petroleum), catalytic cracked: 1
- Distillates (petroleum), light catalytic cracked: 1

### Biodegradability
- Decant (clarified) Oils: No data available
- Light Cycle Oil: aerobic
  - 56.32 %
  - Testing period: 28 d
  - Method: OECD Test Guideline 301F
  - Expected to be inherently biodegradable.

### Ecotoxicology Assessment

**Acute aquatic toxicity**
- Decant (clarified) Oils: Very toxic to aquatic life.
- Light Cycle Oil: Very toxic to aquatic life.

**Chronic aquatic toxicity**
## Decant (clarified) Oils
Very toxic to aquatic life with long lasting effects.

## Light Cycle Oil
Very toxic to aquatic life with long lasting effects.

### Results of PBT assessment

<table>
<thead>
<tr>
<th>Substance</th>
<th>PBT Assessment</th>
<th>vPvB Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decant (clarified) Oils</td>
<td>Non-classified PBT substance</td>
<td>Non-classified vPvB substance</td>
</tr>
<tr>
<td>Light Cycle Oil</td>
<td>Non-classified PBT substance</td>
<td>Non-classified vPvB substance</td>
</tr>
</tbody>
</table>

### Additional ecological information
Very toxic to aquatic life with long lasting effects.

## SECTION 13: Disposal considerations

The information in this SDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

### Product
The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

### Contaminated packaging
Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

## SECTION 14: Transport information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

**US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)**
UN1268, PETROLEUM DISTILLATES, N.O.S., III

**IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)**
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (DECANT (CLARIFIED) OILS, LIGHT CYCLE OIL), 9, III, (65.5 °C), MARINE POLLUTANT, (DECANT (CLARIFIED) OILS, LIGHT CYCLE OIL)

**IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)**
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (DECANT (CLARIFIED) OILS, LIGHT CYCLE OIL), 9, III
**ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))**  
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (DECANT (CLARIFIED) OILS, LIGHT CYCLE OIL), 9, III, (E)

**RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))**  
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (DECANT (CLARIFIED) OILS, LIGHT CYCLE OIL), 9, III

**ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)**  
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (DECANT (CLARIFIED) OILS, LIGHT CYCLE OIL), 9, III

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

### SECTION 15: Regulatory information

**National legislation**

**SARA 311/312 Hazards**
- Fire Hazard
- Acute Health Hazard
- Chronic Health Hazard

**CERCLA Reportable Quantity**
- This material does not contain any components with a CERCLA RQ.

**SARA 302 Reportable Quantity**
- This material does not contain any components with a SARA 302 RQ.

**SARA 302 Threshold Planning Quantity**
- No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 304 Reportable Quantity**
- This material does not contain any components with a section 304 EHS RQ.

**SARA 313 Ingredients**
- This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
Clean Air Act

Ozone-Depletion Potential: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

US State Regulations

Pennsylvania Right To Know: No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right To Know: No components are subject to the New Jersey Right to Know Act.

California Prop. 65 Ingredients: WARNING! This product contains a chemical known in the State of California to cause cancer.

Notification status

Europe REACH: Not in compliance with the inventory
United States of America TSCA: On TSCA Inventory
Canada DSL: All components of this product are on the Canadian DSL
Australia AICS: On the inventory, or in compliance with the inventory
New Zealand NZIoC: Not in compliance with the inventory
Japan ENCS: On the inventory, or in compliance with the inventory
Korea KECI: On the inventory, or in compliance with the inventory
Philippines PICCS: Not in compliance with the inventory
China IECSC: On the inventory, or in compliance with the inventory
SECTION 16: Other information

**NFPA Classification**: Health Hazard: 2
Fire Hazard: 2
Reactivity Hazard: 0

**Further information**

Legacy SDS Number : CPC00570

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

<table>
<thead>
<tr>
<th>Key or legend to abbreviations and acronyms used in the safety data sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
</tr>
<tr>
<td>LDS0</td>
</tr>
<tr>
<td>AICS</td>
</tr>
<tr>
<td>LOAEL</td>
</tr>
<tr>
<td>DSL</td>
</tr>
<tr>
<td>NFPA</td>
</tr>
<tr>
<td>NDSL</td>
</tr>
<tr>
<td>NIOSH</td>
</tr>
<tr>
<td>CNS</td>
</tr>
<tr>
<td>NTP</td>
</tr>
<tr>
<td>CAS</td>
</tr>
<tr>
<td>NZIoC</td>
</tr>
<tr>
<td>EC50</td>
</tr>
<tr>
<td>NOAEL</td>
</tr>
<tr>
<td>EG50</td>
</tr>
<tr>
<td>NOEC</td>
</tr>
<tr>
<td>EOSC</td>
</tr>
<tr>
<td>OSHA</td>
</tr>
<tr>
<td>EOSCA</td>
</tr>
<tr>
<td>PEL</td>
</tr>
<tr>
<td>EINECS</td>
</tr>
<tr>
<td>PICCS</td>
</tr>
<tr>
<td>MAK</td>
</tr>
<tr>
<td>PRNT</td>
</tr>
<tr>
<td>GHS</td>
</tr>
<tr>
<td>RCRA</td>
</tr>
<tr>
<td>&gt;=</td>
</tr>
<tr>
<td>STEL</td>
</tr>
<tr>
<td>IC50</td>
</tr>
<tr>
<td>SARA</td>
</tr>
<tr>
<td>IARC</td>
</tr>
<tr>
<td>TLV</td>
</tr>
<tr>
<td>IECSC</td>
</tr>
<tr>
<td>TWA</td>
</tr>
<tr>
<td>Substances in China</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>ENCS</td>
</tr>
<tr>
<td>KECI</td>
</tr>
<tr>
<td>&lt;=</td>
</tr>
<tr>
<td>LC50</td>
</tr>
</tbody>
</table>