SAFETY DATA SHEET

Synfluid® PAO 2.5 cSt

Version 1.4  Revision Date 2020-02-17

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

Product information

Product Name: Synfluid® PAO 2.5 cSt
Material: 1079862, 1079691

Use: Synthetic Lubricants

Company: Chevron Phillips Chemical Company LP
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: CHEMWATCH (+612 9186 1132) China: 0532 8388 9090
EUROPE: BIG +32.14.584545 (phone) or +32.14.583516 (telexfax)
Mexico CHEMTREC 01-800-681-9531 (24 hours)
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600
Argentina: +(54)-1159839431

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
GHS Classification and labelling according to JIS Z7252-2014 and JIS Z7253-2012 (GHS 2011)

Classification

: Acute toxicity, Category 4, Inhalation
Aspiration hazard, Category 1

Labeling

SDS Number: 100000013639
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Symbol(s): Danger

Signal Word: Danger

Hazard Statements: H304: May be fatal if swallowed and enters airways.
H332: Harmful if inhaled.

Precautionary Statements:

Prevention:
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P271: Use only outdoors or in a well-ventilated area.

Response:
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P331: Do NOT induce vomiting.

Storage:
P405: Store locked up.

Disposal:
P501: Dispose of contents/container to an approved waste disposal plant.

SECTION 3: Composition/information on ingredients

Synonyms: Polyalphaolefin

Molecular formula: UVCB

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration</th>
<th>ENCS/ISHL number</th>
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</thead>
<tbody>
<tr>
<td>1-Dodecene, Dimer Hydrogenated</td>
<td>151006-61-0</td>
<td>100%</td>
<td>(2)-10</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 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 : 186°C (367°F)
Method: Cleveland Open Cup

Autoignition temperature : 324°C (615°F)

Unsuitable extinguishing media : High volume water jet.

Specific hazards during firefighting : Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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

Further information : Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire and explosion protection : Normal measures for preventive fire protection.

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 : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). 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. 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 : Normal measures for preventive fire protection.

Storage

Requirements for storage : Keep container tightly closed in a dry and well-ventilated place.
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<table>
<thead>
<tr>
<th>areas and containers</th>
<th>Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use</strong></td>
<td>Synthetic Lubricants</td>
</tr>
</tbody>
</table>

**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 Dusts and Mists. 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: Protective suit. Safety shoes.

**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**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid</th>
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</thead>
<tbody>
<tr>
<td>Color</td>
<td>Clear, colorless</td>
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<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
</tbody>
</table>

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Safety data

Flash point : 186°C (367°F)
Method: Cleveland Open Cup

Lower explosion limit : Not applicable
Upper explosion limit : Not applicable
Oxidizing properties : no

Autoignition temperature : 324°C (615°F)
Molecular formula : UVCB
Molecular weight : Varies
pH : Not applicable
Freezing point : -52°C (-62°F)

Boiling point/boiling range : 277°C (531°F)
Vapor pressure : 1.00 MMHG
at 150°C (302°F)
Relative density : 0.81
at 15.6 °C (60.1 °F)
Density : 806.8 g/l
Water solubility : Soluble in hydrocarbon solvents; insoluble in water.
Partition coefficient: n-octanol/water : log Pow: > 4.82
at 21°C (70°F)
Viscosity, kinematic : 8.3 cSt
at 40°C (104°F)
Relative vapor density : 10
(Air = 1.0)
Evaporation rate : No data available

SECTION 10: Stability and reactivity

Reactivity : Stable at normal ambient temperature and pressure.

Chemical stability : This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Possibility of hazardous reactions

Hazardous reactions: Further information: No decomposition if stored and applied as directed.

Conditions to avoid: No data available.

Materials to avoid: No data available.

Other data: No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

Acute oral toxicity
1-Dodecene, Dimer Hydrogenated: LD50 Oral: > 5,000 mg/kg
Species: Rat
Test substance: yes

Acute inhalation toxicity
1-Dodecene, Dimer Hydrogenated: LC50: 1.71 mg/l
Exposure time: 4 h
Species: Rat
Sex: female
Test atmosphere: dust/mist
Test substance: yes

LC50: > 5.06 mg/l
Exposure time: 4 h
Species: Rat
Sex: male
Test atmosphere: dust/mist
Test substance: yes

Acute dermal toxicity
1-Dodecene, Dimer Hydrogenated: LD50 Dermal: >2000 milligram per kilogram
Species: Rat
Test substance: yes

Skin irritation
1-Dodecene, Dimer Hydrogenated: No skin irritation

Eye irritation
1-Dodecene, Dimer Hydrogenated: No eye irritation

Sensitization
1-Dodecene, Dimer Hydrogenated: Did not cause sensitization on laboratory animals.

Repeated dose toxicity
1-Dodecene, Dimer Hydrogenated: Species: Rat
Application Route: oral gavage
Dose: 0 up to 1000 mg/kg
Exposure time: 28 day
Number of exposures: daily
NOEL: 1,000 mg/kg

Genotoxicity in vitro
1-Dodecene, Dimer Hydrogenated: Test Type: Ames test
Result: negative

Genotoxicity in vivo
1-Dodecene, Dimer Hydrogenated: Test Type: Mouse micronucleus assay
Result: negative

Aspiration toxicity
1-Dodecene, Dimer Hydrogenated: May be fatal if swallowed and enters airways.

Synfluid® PAO 2.5 cSt
Further information: Solvents may degrease the skin.

SECTION 12: Ecological information

Ecotoxicity effects
Toxicity to fish
1-Dodecene, Dimer Hydrogenated: LL50: > 1,000 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)
Test substance: yes
The product has low solubility in the test medium. An aqueous dispersion was tested.

Toxicity to daphnia and other aquatic invertebrates
1-Dodecene, Dimer Hydrogenated: EL50: > 1,000 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Test substance: yes
The product has low solubility in the test medium. An aqueous dispersion was tested.

Toxicity to algae
1-Dodecene, Dimer Hydrogenated: EbC50: > 1,000 mg/l
Exposure time: 96 h
Species: Selenastrum capricornutum (algae)
Test substance: yes
The product has low solubility in the test medium. An aqueous dispersion was tested.
Biodegradability

1-Dodecene, Dimer Hydrogenated
Elimination information (persistence and degradability)

Mobility

Additional ecological information

Ecotoxicology Assessment

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

Do not dispose of waste into sewer. 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.

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)

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.
ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

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

SECTION 15: Regulatory information

National legislation
Poisonous and Deleterious Substances Control Law
: Not applicable

Industrial Safety and Health Law
Substances Subject to be Notified Names
: Not applicable
Enforcement Order of the Industrial Safety and Health Law - Attached table 1 (Dangerous Substances)

Harmful Substances Required Permission for Manufacture
: Not applicable
Hazardous Substances Subject to Labeling Requirements
: Not applicable
Ordinance on Prevention of Organic Solvent Poisoning
: Not applicable
Ordinance on Prevention of Lead Poisoning
: Not applicable
Harmful Substances Prohibited from Manufacture
: Not applicable
Ordinance on Prevention of Hazards Due to Specified Chemical Substances
: Not applicable
Ordinance on Prevention of Tetraalkyl Lead Poisoning
: Not applicable
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Substances Prevented From Impairment of Health: Not applicable

Chemical Substance Control Law: Not applicable for Specified Chemical Substance, Monitoring Chemical Substance and Priority Assessment Chemical Substance.

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof: Not applicable

Other regulations

Fire Service Law: Flammable liquids
  Type 3 petroleums
  Hazardous rank III

High Pressure Gas Safety Act: Not applicable

Explosive Control Law: Not applicable

Vessel Safety Law: Not regulated as a dangerous good

Aviation Law: Not regulated as a dangerous good

Notification status

Europe  REACH: This mixture contains only ingredients which have been registered according to Regulation (EU) No. 1907/2006 (REACH).

Switzerland  CH INV: Not in compliance with the inventory

United States of America (USA)  TSCA: On or in compliance with the active portion of the 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: Not in compliance with the inventory

Philippines  PICCS: On the inventory, or in compliance with the inventory

China  IECSC: On the inventory, or in compliance with the inventory

Taiwan  TCSI: On the inventory, or in compliance with the inventory
Further information
Legacy SDS Number : 5939

NSF H1, HX-1 Registered, meets USDA 1998 H1 Guidelines

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>
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