# Synfluid® mPAO 100 cSt

Version 2.9 Revision Date 2023-10-25

According to Regulation (EC) No. 1907/2006, Regulation (EC) No. 2020/878

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

### 1.1 Product identifier

**Product information**

Product Name : Synfluid® mPAO 100 cSt
Material : 1116564, 1106295, 1106303

**EC-No.Registration number**

| Chemical name | CAS-No.<br>EC-No.<br>Index No. | Legal Entity<br>Registration number |
|---|---|---|
| 1-Octene | 111-66-0<br>203-893-7 | Chevron Phillips Chemical Company LP<br>01-2119486877-14-0006 |

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant Identified Uses Supported : Lubricant

### 1.3 Details of the supplier of the safety data sheet

**Company** : Chevron Phillips Chemical Company LP
10001 Six Pines Drive
The Woodlands, TX 77380

Local : Chevron Phillips Chemicals International N.V.
Airport Plaza (Stockholm Building)
Leonardo Da Vincilaan 19
1831 Diegem
Belgium

SDS Requests: (800) 852-5530
Responsible Party: Product Safety Group
Email:sds@cpchem.com

### 1.4 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
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
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Austria: VIZ +43 1 406 43 43 (24 hours/day, 7 days/week)
Belgium: 070 245 245 (24 hours/day, 7 days/week)
Bulgaria: +359 2 9154 233
Croatia: +3851 2348 342 (24 hours/day, 7 days/week)
Cyprus: 1401
Czech Republic: Toxicological Information Center +420 224 919 293, +420 224 915 402
Denmark: Danish Poison Center (Giftlinjen): +45 8212 1212
Estonia: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Finland: 0800 147 111 09 471 977 (24 hours/day)
France: ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (24 hours/day, 7 days/week)
Germany: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Greece: (0030) 2107793777 (24 hours/day, 7 days/week)
Hungary: +36-80-201-199 (24 hours/day, 7 days/week)
Iceland: 543 2222 (24 hours/day, 7 days/week)
Ireland: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Italy: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Latvia: State Fire and Rescue Service, phone number: 112; Toxicology and Sepsis Clinic Poisoning and Drug Information Center, Hipokrāta 2, Riga, Latvia, LV-1038, phone number +371 67042473. (24 hours.)
Liechtenstein: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Lithuania: +370 (85) 2362052
Luxembourg: (+352) 8002 5500 (24 hours/day, 7 days/week)
Malta: +356 2395 2000
The Netherlands: NVIC: +31 (0)88 755 8000
Norway: 22 59 13 00 (24 hours/day, 7 days/week)
Poland: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Portugal: CIAV phone number: +351 800 250 250
Romania: +40213183606
Slovakia: +421 2 5477 4166
Slovenia: Phone number: 112
Spain: National Emergency Telephone Number of Spanish Poison Centre: +34 91 562 04 20 (24 hours/day, 7 days/week)
Sweden: 112 – ask for Poisons Information

| | | |
|---|---|---|
| Responsible Department | : | Product Safety and Toxicology Group |
| E-mail address | : | SDS@CPChem.com |
| Website | : | www.CPChem.com |

## SECTION 2: Hazards identification

**2.1**

**Classification of the substance or mixture**
**REGULATION (EC) No 1272/2008**

Not a hazardous substance or mixture.

**2.2**

**Labeling (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.

**2.3**

**Other hazards**

Results of PBT and vPvB assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Endocrine disrupting properties : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

**3.1 - 3.2**

**Substance or Mixture**

Synonyms : Polyalphaolefin; PAO

Molecular formula : Polymer

**Hazardous ingredients**

| Chemical name | CAS-No.<br>EC-No.<br>Index No. | Classification (REGULATION (EC) No 1272/2008) | Concentration [wt%] | Specific Conc. Limits, M-factors and ATEs |
|---|---|---|---|---|
| 1-Octene Homopolymer, Hydrogenated | 70693-43-5 | | 100 | |

Contains no hazardous ingredients according to GHS. :

## SECTION 4: First aid measures

**4.1**

**Description of first-aid measures**

General advice : No hazards which require special first aid measures.

If inhaled : If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact : Wash off with soap and water. Wash contaminated clothing before re-use.

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. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious

person. If symptoms persist, call a physician.

**4.2 Most important symptoms and effects, both acute and delayed**
**Notes to physician**

Symptoms : No information available.

Risks : No information available.

**4.3 Indication of any immediate medical attention and special treatment needed**

Treatment : No information available.

## SECTION 5: Firefighting measures

Flash point : 255°C (491°F)

**5.1**
**Extinguishing media**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : High volume water jet.

**5.2**
**Special hazards arising from the substance or mixture**

Specific hazards during fire fighting : Exposure to decomposition products may be a hazard to health.

**5.3**
**Advice for firefighters**

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.

Hazardous decomposition products : Carbon oxides.

## SECTION 6: Accidental release measures

**6.1**
**Personal precautions, protective equipment and emergency procedures**

Personal precautions : Material can create slippery conditions.

**6.2**
**Environmental precautions**

Environmental precautions : Clean contaminated floors and objects thoroughly while observing environmental regulations.

**6.3**
**Methods and materials for containment and cleaning up**

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece). Keep in

suitable, closed containers for disposal.

**6.4**

**Reference to other sections**

| | | |
|---|---|---|
| Reference to other sections | : | For personal protection see section 8. For disposal considerations see section 13. |

## SECTION 7: Handling and storage

**7.1**

**Precautions for safe handling**
**Handling**

| | | |
|---|---|---|
| Advice on safe handling | : | For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations. |
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection. |

**7.2**

**Conditions for safe storage, including any incompatibilities**

**Storage**

| | | |
|---|---|---|
| Requirements for storage areas and containers | : | Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards. |
| German storage class | : | Combustible liquids |

**7.3**

**Specific End Use**

| | | |
|---|---|---|
| Use | : | Lubricants and lubricant additives |

## SECTION 8: Exposure controls/personal protection

**8.2**

**Exposure controls**
**Engineering measures**

Adequate ventilation to control airborned 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 | : | If ventilation or other engineering controls are not adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure, a supplied-air NIOSH approved respirator may be appropriate. |

| | | |
|---|---|---|
| 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 according to the amount and concentration of the substance and the task performed at the work place. Appropriate PPE may include:. Lightweight protective clothing. |
| Hygiene measures | : | General industrial hygiene practice. Prevent vapor buildup by providing adequate ventilation during and after use.<br>Wash hands before breaks and at the end of workday. |

## SECTION 9: Physical and chemical properties

**9.1**

**Information on basic physical and chemical properties**

**Appearance**

| | | |
|---|---|---|
| Form | : | Oil |
| Physical state | : | liquid |
| Color | : | clear, light |

**Safety data**

| | | |
|---|---|---|
| Flash point | : | 255°C (491°F) |
| Ignition temperature | : | 310°C (590°F) |
| Lower explosion limit | : | No data available |
| Upper explosion limit | : | No data available |
| Thermal decomposition | : | No data available |
| Molecular formula | : | Polymer |
| Molecular weight | : | Varies |
| pH | : | No data available |
| Freezing point | : | -44°C (-47°F) |
| Boiling point/boiling range | : | >250°C (>482°F) |
| Density | : | 0,84 g/cm3 |
| Water solubility | : | Soluble in hydrocarbon solvents; insoluble in water. |

| | | |
|---|---|---|
| Viscosity, kinematic | : | 1014 cSt<br>at 40°C (104°F) |

## SECTION 10: Stability and reactivity

**10.1**

**Reactivity** : Stable at normal ambient temperature and pressure.

**10.2**

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

**10.3**

**Possibility of hazardous reactions**

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

**10.4**

**Conditions to avoid** : No data available.

**10.5**

**Materials to avoid** : No data available.

**Thermal decomposition** : No data available

**10.6**

**Hazardous decomposition products** : Carbon oxides

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

## SECTION 11: Toxicological information

**11.1**

**Information on toxicological effects**

**Synfluid® mPAO 100 cSt**
**Acute oral toxicity** : LD50: > 5.000 mg/kg
Species: Rat
Information given is based on data obtained from similar substances.

**Synfluid® mPAO 100 cSt**
**Acute inhalation toxicity** : LC50: > 5 mg/l
Exposure time: 4 h
Species: Rat
Test atmosphere: dust/mist
Information given is based on data obtained from similar substances.

**Synfluid® mPAO 100 cSt**
**Acute dermal toxicity** : LD50: > 2.000 mg/kg
Species: Rabbit
Information given is based on data obtained from similar substances.

**Synfluid® mPAO 100 cSt**
**Skin irritation** : No skin irritation
Information given is based on data obtained from similar substances.

**Synfluid® mPAO 100 cSt**
**Eye irritation** : No eye irritation
Information given is based on data obtained from similar substances.

**Synfluid® mPAO 100 cSt**
**Sensitization** : Did not cause sensitization on laboratory animals.
Information given is based on data obtained from similar substances.

**Synfluid® mPAO 100 cSt**
**Genotoxicity in vitro** : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Result: negative

**Synfluid® mPAO 100 cSt**
**Genotoxicity in vivo** : Remarks: Not classified due to data which are conclusive although insufficient for classification., Information given is based on data obtained from similar substances.

**Synfluid® mPAO 100 cSt**
**Aspiration toxicity**
**Toxicology Assessment** : No aspiration toxicity classification.

**Synfluid® mPAO 100 cSt**
**Specific Target Organ Toxicity (Single Exposure)** : Remarks: Not classified due to data which are conclusive although insufficient for classification., Based on data from similar materials :

**Synfluid® mPAO 100 cSt**
**Specific Target Organ Toxicity (Repeated Exposure)** : Remarks: Not classified due to data which are conclusive although insufficient for classification., Based on data from similar materials :

**Synfluid® mPAO 100 cSt**
**CMR effects** : Carcinogenicity:
Not available
Mutagenicity:

Weight of evidence does not support classification as a germ cell mutagen.
Teratogenicity:
Not available
Reproductive toxicity:
No toxicity to reproduction, Based on data from similar materials

**11.2**
**Information on other hazards**

**Synfluid® mPAO 100 cSt**

| | | |
|---|---|---|
| **Further information** | : | No data available. |
| Endocrine disrupting properties | : | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |

## SECTION 12: Ecological information

**12.1**
**Toxicity**

**Ecotoxicity effects**

| | | |
|---|---|---|
| **Toxicity to fish** | : | This material is not expected to be harmful to aquatic organisms.<br>Information given is based on data obtained from similar substances. |
| **Toxicity to daphnia and other aquatic invertebrates** | : | This material is not expected to be harmful to aquatic organisms.<br>Information given is based on data obtained from similar substances. |
| **Toxicity to algae** | : | This material is not expected to be harmful to aquatic organisms.<br>Information given is based on data obtained from similar substances. |

**12.2**
**Persistence and degradability**

| | | |
|---|---|---|
| Biodegradability | : | This material is not expected to be readily biodegradable. |

**12.3**
**Bioaccumulative potential**
Elimination information (persistence and degradability)

**12.4**
**Mobility in soil**

| | | |
|---|---|---|
| Mobility | : | No data available |

**12.5**

**Results of PBT and vPvB assessment**

| | | |
|---|---|---|
| Results of PBT assessment | : | This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. |

**12.6**

**Endocrine disrupting properties**

| | | |
|---|---|---|
| Endocrine disrupting properties | : | The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. |

**12.7**

**Other adverse effects**

| | | |
|---|---|---|
| Additional ecological information | : | No data available |

**12.8**

**Additional Information**

**Ecotoxicology Assessment**

| | | |
|---|---|---|
| Short-term (acute) aquatic hazard | : | This material is not expected to be harmful to aquatic organisms. |
| Long-term (chronic) aquatic hazard | : | This material is not expected to be harmful to aquatic organisms. |

## SECTION 13: Disposal considerations

**13.1**

**Waste treatment methods**

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

**14.1 - 14.7**

**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.

**Maritime transport in bulk according to IMO instruments**

## SECTION 15: Regulatory information

**15.1**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**
**National legislation**

Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

**Water hazard class (Germany)** : WGK 1 slightly water endangering

**15.2**

**Chemical Safety Assessment**

| | | | | |
|---|---|---|---|---|
| **Components** | : | oct-1-ene | A Chemical Safety Assessment has been carried out for this substance. | 203-893-7 |

**Major Accident Hazard Legislation** : 96/82/EC Update: 2003
Directive 96/82/EC does not apply

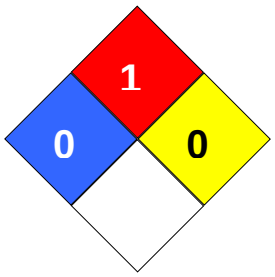
: ZEU_SEVES3 Update:
Not applicable

**Notification status**

| | | |
|---|---|---|
| Europe REACH | : | This mixture contains only ingredients which have been registered according to Regulation (EU) No. 1907/2006 (REACH). |
| Switzerland CH INV | : | On the inventory, or 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 |
| Other AICS | : | On the inventory, or in compliance with the inventory |
| New Zealand NZIoC | : | On the inventory, or in compliance with the inventory |
| Japan ENCS | : | Not in compliance with the inventory |
| Korea KECI | : | All substances in this product were registered, notified to be registered, or exempted from registration by CPChem through an Only Representative according to K-REACH regulations. Importation of this product is permitted if the Korean Importer of Record was included on CPChem's notifications or if the Importer of Record themselves notified the substances. |
| Philippines PICCS | : | On the inventory, or in compliance with the inventory |
| China IECSC | : | On the inventory, or in compliance with the inventory, or has been registered as new substance |
| Taiwan TCSI | : | Not in compliance with the inventory |

## SECTION 16: Other information

**NFPA Classification** : Health Hazard: 0
Fire Hazard: 1
Reactivity Hazard: 0




**Further information**

NSF H1 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.

| Key or legend to abbreviations and acronyms used in the safety data sheet | | | |
|---|---|---|---|
| ACGIH | American Conference of Government Industrial Hygienists | LD50 | Lethal Dose 50% |
| AIIC | Australian Inventory of Industrial Chemicals | LOAEL | Lowest Observed Adverse Effect Level |
| DSL | Canada, Domestic Substances List | NFPA | National Fire Protection Agency |
| NDSL | Canada, Non-Domestic Substances List | NIOSH | National Institute for Occupational Safety & Health |
| CNS | Central Nervous System | NTP | National Toxicology Program |
| CAS | Chemical Abstract Service | NZIoC | New Zealand Inventory of Chemicals |
| EC50 | Effective Concentration | NOAEL | No Observable Adverse Effect Level |
| EC50 | Effective Concentration 50% | NOEC | No Observed Effect Concentration |
| EGEST | EOSCA Generic Exposure Scenario Tool | OSHA | Occupational Safety & Health Administration |
| EOSCA | European Oilfield Specialty Chemicals Association | PEL | Permissible Exposure Limit |
| EINECS | European Inventory of Existing Chemical Substances | PICCS | Philippines Inventory of Commercial Chemical Substances |
| MAK | Germany Maximum Concentration Values | PRNT | Presumed Not Toxic |
| GHS | Globally Harmonized System | RCRA | Resource Conservation Recovery Act |
| >= | Greater Than or Equal To | STEL | Short-term Exposure Limit |
| IC50 | Inhibition Concentration 50% | SARA | Superfund Amendments and Reauthorization Act. |
| IARC | International Agency for Research on Cancer | TLV | Threshold Limit Value |
| IECSC | Inventory of Existing Chemical Substances in China | TWA | Time Weighted Average |
| ENCS | Japan, Inventory of Existing and New Chemical Substances | TSCA | Toxic Substance Control Act |
| KECI | Korea, Existing Chemical Inventory | UVCB | Unknown or Variable Composition, Complex Reaction Products, and Biological Materials |
| <= | Less Than or Equal To | WHMIS | Workplace Hazardous Materials Information System |
| LC50 | Lethal Concentration 50% | ATE | Acute toxicity estimate |