Synfluid® PAO 5 cSt

Version 1.4 Revision Date 2012-02-02

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : Synfluid® PAO 5 cSt
Material : 1070387, 1070389, 1073196, 1079665, 1079929, 1079873

EC-No.Registration number

Chemical Name	CAS-No. Index-No.	Legal Entity Registration number
1-Dodecene, Trimer, Hydrogenated	151006-62-1 601-064-00-8	Chevron Phillips Chemical Company LP 01-0000016388-62-0004
1-Dodecene, Homopolymer, Hydrogenated	151006-63-2	Chevron Phillips Chemical Company LP 01-0000018318-67-0002

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

Local : Chevron Phillips Chemicals International N.V.
Brusselsesteenweg 355
B-3090 Overijse
Belgium

MSDS Requests: (800) 852-5530
Technical Information: (832) 813-4862
Responsible Party: Product Safety Group
Email:msds@cpchem.com

Emergency telephone:

Health:
866.442.9628 (North America)
1.832.813.4984 (International)
Transport:
North America: CHEMTREC 800.424.9300 or 703.527.3887
Asia: +800 CHEMCALL (+800 2436 2255) China: 0532.8388.9090
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Chemcare Asia: Tel: +65 6848 9048 - Mob: +65 8382 9188 - Fax: +65 6848
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 : MSDS@CPChem.com
Website : www.CPChem.com

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Chronic aquatic toxicity , Category 4	H413: May cause long lasting harmful effects to aquatic life.

Classification (67/548/EEC, 1999/45/EC)

Dangerous for the environment	R53: May cause long-term adverse effects in the aquatic environment.

Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard Statements	:	H413	May cause long lasting harmful effects to aquatic life.
Precautionary Statements	:	**Prevention:** P273 **Disposal:** P501	 Avoid release to the environment. Dispose of contents/ container to an approved waste disposal plant.

Additional Labeling:

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 0 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms	:	SYNTHETIC HYDROCARBON BASE OIL OL6705 Polyalphaolefin R6529 PAO
Molecular formula	:	Mixture

Contains no hazardous ingredients according to GHS. :

Remarks : Contains no hazardous ingredients according to GHS.

EC-No.Registration number

Chemical Name	CAS-No. EINECS-No.	Registration number
1-Dodecene, Trimer, Hydrogenated	151006-62-1	Chevron Phillips Chemical Company LP 01-0000016388-62-0004
1-Dodecene,	151006-63-2	Chevron Phillips Chemical Company LP

Homopolymer, Hydrogenated		01-0000018318-67-0002

4. FIRST AID MEASURES

General advice	:	No hazards which require special first aid measures. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Show this material safety data sheet to the doctor in attendance.
If inhaled	:	Move to fresh air in case of accidental inhalation of vapors. Consult a physician after significant exposure.
In case of skin contact	:	Remove contaminated clothing. If irritation develops, get medical attention. Wash off immediately with plenty of water.
In case of eye contact	:	Flush eyes with water as a precaution. Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	If swallowed, DO NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

5. FIRE-FIGHTING MEASURES

Flash point	:	246 - 271 °C (475 - 520 °F) Method: Cleveland Open Cup
Autoignition temperature	:	351 °C (664 °F)
Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific hazards during fire fighting	:	Do not use a solid water stream as it may scatter and spread fire. Cool closed containers exposed to fire with water spray.
Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus.
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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions.
Environmental precautions	:	No special environmental precautions required.
Methods for cleaning up	:	Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.
Additional advice	:	No conditions to be specially mentioned.

7. HANDLING AND STORAGE

Handling

Advice on safe handling	:	Do not breathe vapors/dust. 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.

Storage

Requirements for storage areas and containers	:	Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards. 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. Electrical installations / working materials must comply with the technological safety standards.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures

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.
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:. Lightweight protective clothing.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.
Protective measures	:	Wear suitable protective equipment. When using do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

Form	:	Liquid
Physical state	:	Liquid
Color	:	Colorless
Odor	:	Odorless

Safety data

Flash point	:	246 - 271 °C (475 - 520 °F) Method: Cleveland Open Cup
Lower explosion limit	:	No data available
Upper explosion limit	:	No data available
Oxidizing properties	:	no
Autoignition temperature	:	351 °C (664 °F)
Molecular formula	:	Mixture
Molecular Weight	:	Not applicable
pH	:	Not applicable
Pour point	:	> -52 °C (> -62 °F) < -42 °C (< -44 °F)
Boiling point/boiling range	:	> 260 °C (> 500 °F)
Vapor pressure	:	No data available
Density	:	6,87 - 6,96 L/G

Water solubility	:	Soluble in hydrocarbon solvents; insoluble in water.
Viscosity, kinematic	:	23,6 - 52,9 cSt at 40 °C (104 °F) Method: ASTM D 445
Relative vapor density	:	No data available
Evaporation rate	:	No data available

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	:	No data available.
Materials to avoid	:	May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Other data	:	No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Synfluid® PAO 5 cSt
Acute oral toxicity : LD50: > 5.000 mg/kg
Species: rat
Information given is based on data obtained from similar substances.

Synfluid® PAO 5 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® PAO 5 cSt
Acute dermal toxicity : LD50: > 2.000 mg/kg
Species: rat
Information given is based on data obtained from similar substances.

Synfluid® PAO 5 cSt
Skin irritation : No skin irritation
Information given is based on data obtained from similar substances.

Synfluid® PAO 5 cSt
Eye irritation : No eye irritation
Information given is based on data obtained from similar substances.

Synfluid® PAO 5 cSt
Sensitization : Did not cause sensitization on laboratory animals.
Information given is based on data obtained from similar substances.

Synfluid® PAO 5 cSt
Repeated dose toxicity : Species: rat, Male and female
Sex: Male and female
Application Route: oral gavage
Dose: 0, 1000 mg/kg/day
Exposure time: 28 days
NOEL: 1.000 mg/kg
Method: OECD Test Guideline 407
Information given is based on data obtained from similar substances.

Synfluid® PAO 5 cSt
Aspiration toxicity : No aspiration toxicity classification.
Toxicology Assessment

Synfluid® PAO 5 cSt
CMR effects : Carcinogenicity:
Not classifiable as a human carcinogen.
Mutagenicity:
Animal testing did not show any mutagenic effects.
Teratogenicity:
Did not show teratogenic effects in animal experiments.
Reproductive toxicity:
No toxicity to reproduction

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to fish : LL50: > 1.000 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)
static test Test substance: no
Method: OECD Test Guideline 203
Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates. : EL50: > 1.000 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
static test Test substance: no
Method: OECD Test Guideline 202
Information given is based on data obtained from similar

substances.

Toxicity to algae : NOEC: > 1.000 mg/l
Exposure time: 96 h
Species: Selenastrum capricornutum (algae)
Method: OECD Test Guideline 201
Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates. (Chronic toxicity) : NOEC: 125 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test substance: no
The product has low solubility in the test medium. An aqueous dispersion was tested.
Information given is based on data obtained from similar substances.

Elimination information (persistence and degradability)

Biodegradability : This material is not expected to be readily biodegradable.
Expected to be ultimately biodegradable

13. DISPOSAL CONSIDERATIONS

The information in this MSDS 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 : Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Empty remaining contents. Dispose of as unused product.
Do not re-use empty containers.

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 MSDS 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

15. REGULATORY INFORMATION

National legislation

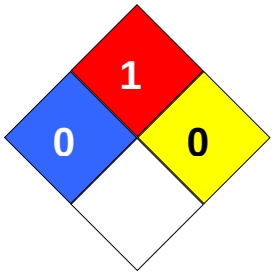
Major Accident Hazard Legislation	:	96/82/EC Update: 2003 Directive 96/82/EC does not apply
Water contaminating class (Germany)	:	WGK 1 slightly water endangering

Notification status

Europe REACH	:	This mixture contains only ingredients which have been registered according to Regulation (EU) No. 1907/2006 (REACH).
United States of America US.TSCA	:	On TSCA Inventory
Canada DSL	:	All components of this product are on the Canadian DSL list.
Australia AICS	:	On the inventory, or in compliance with the inventory
New Zealand NZIoC	:	On the inventory, or 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	:	On the inventory, or in compliance with the inventory
China IECSC	:	On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

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



Further information

Legacy MSDS Number : 5940

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 MSDS pertains only to the product as shipped.

The information provided in this Material 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%
AICS	Australia, Inventory of Chemical Substances	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	Philipines 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 Compositon, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

Full text of R-phrases referred to under sections 2 and 3

R53 May cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under sections 2 and 3.

H413 May cause long lasting harmful effects to aquatic life.