PAO 6FG

Version 1.0 Revision Date 2014-02-18

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

Product information

Trade name : PAO 6FG
Material : 1111730

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:
North America: CHEMTREC 800.424.9300 or 703.527.3887
Asia: +800 CHEMCALL (+800 2436 2255)
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 : MSDS@CPChem.com
Website : www.CPChem.com

SECTION 2: Hazards identification

Emergency Overview

Physical state: Liquid **Color**: Clear, Colorless **Odor**: Odorless

OSHA Hazards : No OSHA Hazards

GHS Classification

Not a dangerous substance according to Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

GHS-Labeling

Not a dangerous substance according to Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Carcinogenicity:

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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.

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	:	Polyalphaolefin PAO 1-Decene, homopolymer, hydrogenated
Molecular formula	:	UVCB
CAS-No.	:	68037-01-4
EINECS-No.	:	500-183-1

Component	CAS-No.	Weight %
1-Decene Homopolymer Hydrogenated	68037-01-4	100

Contains no hazardous ingredients according to GHS.

SECTION 4: First aid measures

General advice	:	Do not leave the victim unattended.
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.
In case of eye contact	:	Remove contact lenses. Protect unharmed eye. 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.

SECTION 5: Firefighting measures

Special protective equipment for fire-fighters	:	Wear self contained breathing apparatus for fire fighting 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

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

SECTION 7: Handling and storage

Handling

Advice on safe handling	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.

Storage

Requirements for storage areas and containers	:	Electrical installations / working materials must comply with the technological safety standards.

SECTION 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. Safety shoes.
Hygiene measures	:	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	:	Clear, Colorless
Odor	:	Odorless

Safety data

Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Oxidizing properties	:	no
Molecular formula	:	UVCB
Molecular Weight	:	Varies
pH	:	Not applicable
Melting point/range	:	Not applicable
Relative density	:	0.83, 15.6 °C(60.1 °F)
Water solubility	:	Soluble in hydrocarbon solvents; insoluble in water.
Partition coefficient: n-octanol/water	:	No data available
Relative vapor density	:	10 (Air = 1.0)

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	:	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.

SECTION 11: Toxicological information

PAO 6FG

Acute oral toxicity : LD50: > 5,000 mg/kg
Species: rat
Information given is based on data obtained from similar substances.

PAO 6FG
Acute inhalation toxicity : LC50: > 5.2 mg/l
Exposure time: 4 h
Species: rat
Test atmosphere: dust/mist
Information given is based on data obtained from similar substances.

PAO 6FG
Acute dermal toxicity : LD50 Dermal: > 2,000 mg/kg
Species: rat
Information given is based on data obtained from similar substances.

LD50 Dermal: > 2,000 mg/kg
Species: rat
Information given is based on data obtained from similar substances.

PAO 6FG
Skin irritation : No skin irritation

PAO 6FG
Eye irritation : No eye irritation

PAO 6FG
Sensitization : Did not cause sensitization on laboratory animals.

Repeated dose toxicity

1-Decene Homopolymer Hydrogenated : Species: rat
Application Route: Oral
Dose: 0, 8000, 20000, 50000 ppm
Exposure time: 28 day
Number of exposures: daily
NOEL: 6,245 mg/kg
Method: OECD Test Guideline 407

Species: rat
Application Route: oral gavage
Dose: 0, 1000, 7000, 50000 ppm
Exposure time: 13 weeks
Number of exposures: daily
NOEL: 4,159.4 mg/kg
Method: OCED Guideline 408

Carcinogenicity

1-Decene Homopolymer : Remarks: This information is not available.

Hydrogenated

Reproductive toxicity

1-Decene Homopolymer Hydrogenated	:	Species: rat Sex: male and female Application Route: oral gavage Dose: 0, 100, 500, 1000 mg/kg Number of exposures: daily Test period: 10 weeks Method: OECD Test Guideline 415 NOAEL Parent: 1,000 mg/kg

PAO 6FG
Developmental Toxicity : This information is not available.

PAO 6FG
Aspiration toxicity : No aspiration toxicity classification.

CMR effects

1-Decene Homopolymer Hydrogenated	:	Carcinogenicity: Not classifiable as a human carcinogen. Mutagenicity: Animal testing did not show any mutagenic effects. Teratogenicity: Not available Reproductive toxicity: No toxicity to reproduction

SECTION 12: Ecological information

Toxicity to fish

1-Decene Homopolymer Hydrogenated	:	LL50: > 1,000 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates

1-Decene Homopolymer Hydrogenated	:	EL50: > 1,000 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) static test Method: OECD Test Guideline 202

Toxicity to algae

1-Decene Homopolymer Hydrogenated	:	NOELR: 1,000 mg/l Exposure time: 72 h Species: Scenedesmus capricornutum (fresh water algae) static test Method: OECD Test Guideline 201

Elimination information (persistence and degradability)

Bioaccumulation

1-Decene Homopolymer	:	This material is not expected to bioaccumulate.

Hydrogenated

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

Results of PBT assessment

1-Decene Homopolymer Hydrogenated : Non-classified PBT substance, Non-classified vPvB substance

Additional ecological information : This material is not expected to be harmful to aquatic organisms.

SECTION 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.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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 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

SECTION 15: Regulatory information

National legislation

SARA 311/312 Hazards : No SARA Hazards

EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO – KNOW

SARA 302 Threshold Planning Quantity	:	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Ingredients	:	SARA 313: 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 12 (40 CFR 61).

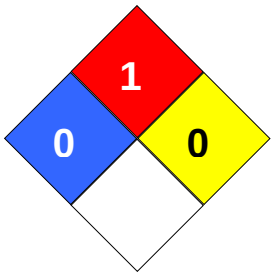
California Prop. 65 Ingredients	:	This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Notification status

Europe REACH	:	On the inventory, or in compliance with the inventory
United States of America TSCA	:	On the inventory, or in compliance with the inventory
Canada DSL	:	On the inventory, or in compliance with the inventory
Australia AICS	:	On the inventory, or in compliance with the inventory
New Zealand NZIoC	:	On the inventory, or in compliance with the inventory Notification number: HSR002606
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

SECTION 16: Other information

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



Further information

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	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%		