

**C12 PAO**

Version 1.3

Revision Date 2017-03-07

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

Product Name : C12 PAO
Material : 1113716

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: +800 CHEMCALL (+800 2436 2255) China: +86-21-22157316

EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)

Mexico CHEMTREC 01-800-681-9531 (24 hours)

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.

Classification

:

Not a hazardous substance or mixture.

Labeling

Not a hazardous substance or mixture.

Carcinogenicity:

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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	: R02253 R05051 Polyalphaolefin PAO
Molecular formula	: Polymer
Contains no hazardous ingredients according to GHS.	

SECTION 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.

SECTION 5: Firefighting 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.

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- 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.

SECTION 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.

SECTION 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.

SECTION 8: Exposure controls/personal protection**Engineering measures**

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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. |

SECTION 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) |

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Molecular formula	: Polymer
Molecular weight	: Not applicable
pH	: Not applicable
Pour point	: < -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	: 38 cSt at 40 °C (104 °F) Method: ASTM D 445
Relative vapor density	: No data available
Evaporation rate	: No data available

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.
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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.
Hazardous decomposition products	: Carbon oxides
Other data	: No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

C12 PAO Acute oral toxicity	: LD50: > 5,000 mg/kg Species: Rat Information given is based on data obtained from similar substances.
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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.

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

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Skin irritation : No skin irritation
 Information given is based on data obtained from similar substances.

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Eye irritation : No eye irritation
 Information given is based on data obtained from similar substances.

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Sensitization : Did not cause sensitization on laboratory animals.
 Information given is based on data obtained from similar substances.

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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.

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Aspiration toxicity : No aspiration toxicity classification.
Toxicology Assessment

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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

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SECTION 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

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 : Dispose of wastes in an approved waste disposal facility.

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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

Other information : Polyolefin (molecular weight 300+) (n), S.T. 2, Cat.Y

SECTION 15: Regulatory information**National legislation**

SDS Number:100000103045

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SARA 311/312 Hazards : No SARA Hazards**EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO - KNOW**

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 SOCM I 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.

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New Jersey Right To Know

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

**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**

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

**United States of America (USA)
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

: On the inventory, or in compliance with the inventory

Japan ENCS

: On the inventory, or in compliance with the inventory

Korea KECI

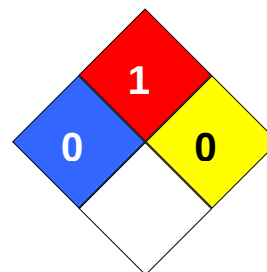
: On the inventory, or in compliance with the inventory

Philippines PICCS

: On the inventory, or in compliance with the inventory

China IECSC

: On the inventory, or in compliance with the inventory

SECTION 16: Other information**NFPA Classification**: Health Hazard: 0
Fire Hazard: 1
Reactivity Hazard: 0**Further information**

Legacy SDS Number : 5941

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%
AICS	Australia, Inventory of Chemical	LOAEL	Lowest Observed Adverse Effect

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	Substances		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%		