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

1.1

Product information

Product Name: AlphaPlus® C24-28
Material: 1083881, 1037065, 1037066, 1037067, 1036986, 1037068

EC-No. Registration number

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. EC-No. Index No.</th>
<th>Legal Entity Registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha Olefin Fraction, C24-28</td>
<td>93924-11-9 300-203-7</td>
<td>Chevron Phillips Chemical Company LP 01-2119485392-33-0000</td>
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</tbody>
</table>

1.2

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

Relevant Identified Uses: Manufacture
Supported
Use as an intermediate
Formulation
Other consumer uses

1.3

Details of the supplier of the safety data sheet

Company: Chevron Phillips Chemical Company LP
Normal Alpha Olefins (NAO)
10001 Six Pines Drive
The Woodlands, TX 77380

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

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

SDS Number: 100000067879 1/15
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
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
Argentina: +(54)-1159839431

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.

SECTION 3: Composition/information on ingredients

3.1 - 3.2 Substance or Mixture

Synonyms: C24-C28 Alpha Olefin Fraction
NAO 24-28

Molecular formula: UVCB

Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. EC-No. Index No.</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration [wt%]</th>
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<td>Alpha Olefin Fraction, C24-28</td>
<td>93924-11-9 300-203-7</td>
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<td>100</td>
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</table>

Contains no hazardous ingredients according to GHS.

SECTION 4: First aid measures

4.1 Description of first-aid measures

SDS Number: 100000067879 2/15
**AlphaPlus® C24-28**  
Version 2.8  
Revision Date 2019-12-12

<table>
<thead>
<tr>
<th>General advice</th>
<th>No hazards which require special first aid measures.</th>
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<tr>
<td>If inhaled</td>
<td>If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.</td>
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<tr>
<td>In case of eye contact</td>
<td>Remove contact lenses. Protect unharmed eye. If eye irritation persists, consult a specialist.</td>
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<tr>
<td>If swallowed</td>
<td>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.</td>
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### SECTION 5: Firefighting measures

| Flash point | 218°C (424°F)  
Method: PMCC |
<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Autoignition temperature</td>
<td>249°C (480°F)</td>
</tr>
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</table>

#### 5.1 Extinguishing media

| Suitable extinguishing media | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |

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

| 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. |

#### 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 | Provide appropriate exhaust ventilation at places where dust is formed. |

### SECTION 6: Accidental release measures

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

| Personal precautions | Avoid dust formation. |

#### 6.2 Environmental precautions

| Environmental precautions | No special environmental precautions required. |

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

| Methods for cleaning up | Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. |

SDS Number: 100000067879  
3/15
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.

Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities
Storage
Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage : No materials to be especially mentioned.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

PNEC : Fresh water
Value: 0.001 mg/l

PNEC : Marine water
Value: 0.001 mg/l

8.2 Exposure controls
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 Organic Vapors, 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. Safety glasses.

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 : General industrial hygiene practice.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Form : Wax, Solid
Physical state : Solid
Color : White
Odor : No odor

Safety data

Flash point : 218°C (424°F)
Method: PMCC
Lower explosion limit : No data available
Upper explosion limit : No data available
Oxidizing properties : no
Autoignition temperature : 249°C (480°F)
Molecular formula : UVCB
Molecular weight : Varies
pH : Not applicable
### 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: Stable under recommended storage conditions., No hazards to be specially mentioned.

#### 10.4 Conditions to avoid

No data available.

#### 10.5 Materials to avoid

No data available.
OTHER DATA: No decomposition if stored and applied as directed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute oral toxicity
Alpha Olefin Fraction, C24-28: LD50: >5000 mg/kg
Species: Rat
Information given is based on data obtained from similar substances.

LD50: > 2000 - < 5000 mg/kg
Species: Rat
Information given is based on data obtained from similar substances.

Acute inhalation toxicity
Alpha Olefin Fraction, C24-28: LC50: > 2.1 mg/L
Exposure time: 4 h
Species: Rat
Sex: male and female
Test atmosphere: vapor
Method: OECD Test Guideline 403
Information given is based on data obtained from similar substances.

LC50: 110.1 mg/L
Exposure time: 4 h
Species: Rat
Test atmosphere: vapor
Method: OECD Test Guideline 403
Information given is based on data obtained from similar substances.

LC50: > 8.5 mg/L
Exposure time: 1 h
Species: Rat
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Information given is based on data obtained from similar substances.

Acute dermal toxicity
Alpha Olefin Fraction, C24-28: LD50: > 2020 mg/kg
Species: Rabbit
Method: OECD Test Guideline 402
Information given is based on data obtained from similar substances.

Skin irritation
Alpha Olefin Fraction, C24-28: No skin irritation
Information given is based on data obtained from similar substances.
### Eye irritation
Alpha Olefin Fraction, C24-28: No eye irritation
Information given is based on data obtained from similar substances.

### Sensitization
Alpha Olefin Fraction, C24-28: Did not cause sensitization on laboratory animals.
Information given is based on data obtained from similar substances.

### Repeated dose toxicity
Alpha Olefin Fraction, C24-28:
- **Species:** Rat, Male and female
- **Sex:** Male and female
- **Application Route:** oral gavage
- **Dose:** 100, 500, 1000 mg/kg/day
- **Exposure time:** 13 weeks
- **Number of exposures:** 7 d/wk
- **NOEL:** 1000 mg/kg bw/day

Species: Rat, Male and female
Sex: Male and female
Application Route: Inhalation
Dose: 300, 1000, 3000 ppm
Exposure time: 13 weeks
Number of exposures: 6 hrs/d, 5 d/wk
NOEL: 3000 ppm

### Genotoxicity in vitro
Alpha Olefin Fraction, C24-28:
- **Test Type:** E. Coli bacterial reverse mutation assay
- **Metabolic activation:** with and without metabolic activation
- **Method:** Mutagenicity (Escherichia coli - reverse mutation assay)
- **Result:** negative
Test Type: E. Coli bacterial reverse mutation assay  
Metabolic activation: with and without metabolic activation  
Method: Mutagenicity (Escherichia coli - reverse mutation assay)  
Result: negative

Test Type: Mammalian cell gene mutation assay  
Metabolic activation: with and without metabolic activation  
Method: OECD Guideline 476  
Result: negative

Test Type: Mouse lymphoma assay  
Metabolic activation: with and without metabolic activation  
Method: OECD Guideline 476  
Result: negative

Test Type: Chromosome aberration test in vitro  
Method: OECD Guideline 473  
Result: negative

Test Type: Chromosome aberration test in vitro  
Method: OECD Guideline 473  
Result: negative

Genotoxicity in vivo
Alpha Olefin Fraction, C24-28  
Test Type: Mouse micronucleus assay  
Species: Mouse  
Dose: 500, 1000, 2000 mg/kg  
Method: Mutagenicity (micronucleus test)  
Result: negative

Test Type: Mouse micronucleus assay  
Species: Mouse  
Dose: 1000, 10000, 25000 ppm  
Method: Mutagenicity (micronucleus test)  
Result: negative

Test Type: Mouse micronucleus assay  
Dose: 1000, 10000, 25000 ppm  
Method: Mutagenicity (micronucleus test)  
Result: negative

Reproductive toxicity
Alpha Olefin Fraction, C24-28  
Species: Rat  
Sex: male and female  
Application Route: oral gavage  
Dose: 100, 500, 1000 mg/kg/day  
Number of exposures: Daily  
Test period: 41 to 55 days  
Method: OECD Guideline 421  
NOAEL Parent: 1000 mg/kg/day  
NOAEL F1: 1000 mg/kg/day
**AlphaPlus® C24-28**

**Species**: Rat  
**Sex**: male and female  
**Application Route**: oral gavage  
**Dose**: 100, 500, 1000 mg/kg/day  
**Number of exposures**: Daily  
**Test period**: 42-51 days  
**Method**: OECD Guideline 422  
**NOAEL Parent**: 1000 mg/kg/day  
**NOAEL F1**: 1000 mg/kg/day

### CMR effects

**Alpha Olefin Fraction, C24-28**

- **Carcinogenicity**: Not classifiable as a human carcinogen.  
- **Mutagenicity**: Did not show mutagenic effects in animal experiments.  
- **Teratogenicity**: Did not show teratogenic effects in animal experiments.  
- **Reproductive toxicity**: No toxicity to reproduction

**AlphaPlus® C24-28**

**Further information**: No data available.

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Ecotoxicity effects**

**Toxicity to fish**

**Alpha Olefin Fraction, C24-28**

- **LL50**: > 1000 mg/l  
- **Exposure time**: 96 h  
- **Species**: Oncorhynchus mykiss (rainbow trout)  
- **Method**: OECD Test Guideline 203  

Information given is based on data obtained from similar substances.

**Toxicity to daphnia and other aquatic invertebrates**

**Alpha Olefin Fraction, C24-28**

- **EL100**: 1000 mg/l  
- **Exposure time**: 48 h  
- **Species**: Daphnia magna (Water flea)  
- **Method**: OECD Test Guideline 202  

Information given is based on data obtained from similar substances.

**Toxicity to algae**

**Alpha Olefin Fraction, C24-28**

- **EL50**: >1000 mg/l  
- **Exposure time**: 72 h  
- **Species**: Selenastrum capricornutum (algae)  
- **Method**: OECD Test Guideline 201  

Information given is based on data obtained from similar substances.
12.2 Persistence and degradability

Biodegradability

Alpha Olefin Fraction, C24-28: This material is not expected to be readily biodegradable.

12.3 Bioaccumulative potential

Elimination information (persistence and degradability)

Bioaccumulation: This material is not expected to bioaccumulate.

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 Other adverse effects

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

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.

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

When shipment is offered for transport above 100°C it is regulated as:

UN3257, ELEVATED TEMPERATURE LIQUID, N.O.S., (ALPHA OLEFIN FRACTION, C24-28), 9, III

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

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

When shipment is offered for transport above 100°C it is regulated as:

UN3257, ELEVATED TEMPERATURE LIQUID, N.O.S., (ALPHA OLEFIN FRACTION, C24-28), 9, III (218°C)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

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

When shipment is offered for transport above 100°C it is regulated as:

UN3257, 9: NOT PERMITTED FOR TRANSPORT

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))

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

When shipment is offered for transport above 100°C it is regulated as:

UN3257, ELEVATED TEMPERATURE LIQUID, N.O.S., (ALPHA OLEFIN FRACTION, C24-28), 9, III, (D)

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))

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

When shipment is offered for transport above 100°C it is regulated as:
UN3257, ELEVATED TEMPERATURE LIQUID, N.O.S., (ALPHA OLEFIN FRACTION, C24-28), 9, III

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.

When shipment is offered for transport above 100°C it is regulated as:
UN3257, ELEVATED TEMPERATURE LIQUID, N.O.S., (ALPHA OLEFIN FRACTION, C24-28), 9, III

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

**SECTION 15: Regulatory information**

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

National legislation

15.2 Major Accident Hazard Legislation

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<thead>
<tr>
<th>Country</th>
<th>Status</th>
<th>Update</th>
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<tbody>
<tr>
<td>ZEU SEVES3</td>
<td>Not applicable</td>
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Notification status

<table>
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<th>Europe REACH</th>
<th>This product is in full compliance according to REACH regulation 1907/2006/EC.</th>
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<tbody>
<tr>
<td>Switzerland CH INV</td>
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<tr>
<td>United States of America (USA) TSCA</td>
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<td>Canada DSL</td>
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<td>Japan ENCS</td>
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<tr>
<td>Korea KECS</td>
<td>A substance or substances in this product is not registered or notified to be registered. Importation or manufacture of this product is still permitted provided that it does not exceed the REACH minimum threshold quantity of the non-regulated substances.</td>
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NFPA Classification

- Health Hazard: 0
- Fire Hazard: 1
- Reactivity Hazard: 0

Further information

Legacy SDS Number: PE0027

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>
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<th>Key or legend to abbreviations and acronyms used in the safety data sheet</th>
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