

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

according to GB/T 16483 and GB/T 17519

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

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

**Company** : Chevron Phillips Chemical Company LP  
Normal Alpha Olefins (NAO)  
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: 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 (Gifftlinjen): +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

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

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**

**Classification of the substance or mixture**  
**GHS Classification and Labeling: Follow GB 13690, GB 15258 and GB 30000.2 to GB 30000.29 (GHS 2011)**

**Emergency Overview**

**Form:** Wax., solid    **Physical state:** solid    **Color:** White    **Odor:** no odor

**Classification**

Not a hazardous substance or mixture.

**Labeling**

Not a hazardous substance or mixture.

**SECTION 3: Composition/information on ingredients**

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

Molecular formula : UVCB

Chemical name	CAS-No. / EINECS-No.	Concentration [wt%]
Alpha Olefin Fraction, C24-28	93924-11-9	100

Contains no hazardous ingredients according to GHS.

**SECTION 4: First aid measures**

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

If inhaled : If unconscious, place in recovery position and seek medical

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

- advice. If symptoms persist, call a physician.
- In case of eye contact : Remove contact lenses. Protect unharmed eye. 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.

**SECTION 5: Firefighting measures**

- Flash point : 218°C (424°F)  
Method: PMCC
- Autoignition temperature : 249°C (480°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 : 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**

- Personal precautions : Avoid dust formation.
- Environmental precautions : No special environmental precautions required.
- Methods for cleaning up : Pick up and arrange disposal without creating dust. Sweep up and shovel. 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 : Provide appropriate exhaust ventilation at places where dust is formed.

**Storage**

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

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**

Not applicable

**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, aerosolization, 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****Information on basic physical and chemical properties****Appearance**

Form : Wax., solid

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

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

Melting point/range : 63°C (145°F)  
Method: ASTM D-87

Boiling point/boiling range : 390-430°C (734-806°F)

Vapor pressure : < 0.01 kPa  
at 65°C (149°F)

Relative density : 0.82  
at 15.6 °C (60.1 °F)

Density : 821 kg/m<sup>3</sup>  
at 15°C (59°F)

799 kg/m<sup>3</sup>  
at 50°C (122°F)

Water solubility : Soluble in hydrocarbon solvents; insoluble in water.

Partition coefficient: n-octanol/water : No data available

Viscosity, kinematic : 2.5 cSt  
at 98.9°C (210.0°F)

Relative vapor density : 0.82  
at 15.6°C (60.1°F)

Evaporation rate : Not applicable

**SECTION 10: Stability and reactivity**

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

<b>Reactivity</b>	: Stable at normal ambient temperature and pressure.
<b>Chemical stability</b>	: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Possibility of hazardous reactions</b>	
<b>Hazardous reactions</b>	: Further information: Stable under recommended storage conditions., No hazards to be specially mentioned.
<b>Conditions to avoid</b>	: No data available.
<b>Materials to avoid</b>	: No data available.
<b>Other data</b>	: No decomposition if stored and applied as directed.

**SECTION 11: Toxicological information****Acute oral toxicity**

Alpha Olefin Fraction, C24-28 : LD50: >2020 mg/kg  
Species: Rat  
Information given is based on data obtained from similar substances.

**Acute inhalation toxicity**

Alpha Olefin Fraction, C24-28 : Not classified  
Based on data from similar materials

**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**

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

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

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

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

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 available  
Mutagenicity: Weight of evidence does not support classification as a germ cell mutagen.  
Teratogenicity: Not available  
Reproductive toxicity: Weight of evidence does not support classification for reproductive toxicity

**AlphaPlus® C24-28  
Further information**

: No data available.

**SECTION 12: Ecological information****Ecotoxicity effects  
Toxicity to fish**

Alpha Olefin Fraction, C24-28 : LL50: > 1000 mg/l  
Exposure time: 96 h  
Species: Oncorhynchus mykiss (rainbow trout)



**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

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.

**Biodegradability**

Alpha Olefin Fraction, C24-28 : This material is not expected to be readily biodegradable.  
Elimination information (persistence and degradability)

Bioaccumulation : This material is not expected to bioaccumulate.

Mobility : No data available

Results of PBT assessment  
Alpha Olefin Fraction, C24-28 : Non-classified PBT substance, Non-classified vPvB substance

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

No data available

**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**

The information in this SDS pertains only to the product as shipped.

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

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 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 at or 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 at or 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 at or 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 at or above 100°C it is regulated as:

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

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 at or 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 at or above 100°C it is regulated as:

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

<b>Other information</b>	<b>:</b>	<b>OLEFINS (C13 +, all isomers), S.T. 2, Cat.Y</b>
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**Maritime transport in bulk according to IMO instruments**

**SECTION 15: Regulatory information****Notification status**

Europe REACH	:	This product is in full compliance according to REACH regulation 1907/2006/EC.
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	:	On the inventory, or in compliance with the inventory
Australia AICS	:	Not 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	:	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.
Philippines PICCS	:	On the inventory, or in compliance with the inventory
China IECSC	:	On the inventory, or in compliance with the inventory

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28

Taiwan TCSI : On the inventory, or in compliance with the inventory

**SECTION 16: Other information****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.

**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%		

**AlphaPlus® C24-28**

Version 1.10

Revision Date 2022-04-28