

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

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

Product Name : AlphaPlus® C16/18/20-24 IS
Material : 1105983, 1105982, 1105972, 1105931, 1105930, 1105936,
1105966, 1105965

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:

North America: CHEMTREC 800.424.9300 or 703.527.3887

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

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 : 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.

Emergency Overview**Danger****Form:** Liquid **Physical state:** Liquid **Color:** Clear, colorless to light yellow

OSHA Hazards : Aspiration hazard

Classification

: Aspiration hazard , Category 1

Labeling

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

Symbol(s)

:



Signal Word

: Danger

Hazard Statements

: H304: May be fatal if swallowed and enters airways.

Precautionary Statements

: **Response:**
 P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
 P331 Do NOT induce vomiting.
Storage:
 P405 Store locked up.
Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

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

: Isomerized Alpha Olefin C16/C18/C20-24 Blend

Molecular formula

: Mixture

Component	CAS-No.	Weight %
Hexadecene	26952-14-7	55 - 65
Octadecene	27070-58-2	25 - 35

SECTION 4: First aid measures

General advice

: Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.

If inhaled

: If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact

: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

- In case of eye contact : Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5: Firefighting measures

- Flash point : 130 °C (266 °F)
- Unsuitable extinguishing media : High volume water jet.
- 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 : Normal measures for preventive fire protection.
- Hazardous decomposition products : None.

SECTION 6: Accidental release measures

- Personal precautions : Use personal protective equipment. Ensure adequate ventilation.
- Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage**Handling**

- Advice on safe handling : Do not breathe vapors/dust. Avoid contact with skin and eyes. 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.

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

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**

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. 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. 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:. Protective suit. Safety shoes.
- Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties**Information on basic physical and chemical properties****Appearance**

Form : Liquid

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

Physical state : Liquid
Color : Clear, colorless to light yellow

Safety data

Flash point : 130 °C (266 °F)

Lower explosion limit : No data available

Upper explosion limit : No data available

Oxidizing properties : Not applicable

Molecular formula : Mixture

pH : Not applicable

Freezing point : -10 °C (14 °F)

Boiling point/boiling range : 290 °C (554 °F)
at 1.01 bar

Vapor pressure : 0.01 PSI
at 25 °C (77 °F)

Density : 0.78 G/ML
at 15.6 °C (60.1 °F)

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

Solubility in other solvents : Medium: Hydrocarbons
Soluble

Viscosity, kinematic : 2.6 cSt
at 40 °C (104 °F)

Relative vapor density : Not applicable

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.

Possibility of hazardous reactions

Conditions to avoid : No data available.

Materials to avoid : May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous decomposition : None

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

products

Other data : No decomposition if stored and applied as directed.

SECTION 11: Toxicological information**AlphaPlus® C16/18/20-24 IS**

Acute oral toxicity : LD50: > 5,000 mg/kg
Species: Rat
Method: Acute toxicity estimate

AlphaPlus® C16/18/20-24 IS

Acute inhalation toxicity : LC50: > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Acute toxicity estimate

AlphaPlus® C16/18/20-24 IS

Acute dermal toxicity : LD50: > 5,000 mg/kg
Method: Acute toxicity estimate

AlphaPlus® C16/18/20-24 IS

Skin irritation : May cause skin irritation and/or dermatitis.

AlphaPlus® C16/18/20-24 IS

Eye irritation : No eye irritation.
Vapors may cause irritation to the eyes, respiratory system and the skin.

AlphaPlus® C16/18/20-24 IS

Sensitization : Does not cause sensitization.

Repeated dose toxicity

Hexadecene : Species: Rat, Male and female
Sex: Male and female
Application Route: Oral
Dose: 0, 25, 150, 1000 mg/kg
Exposure time: 4 wks
Number of exposures: daily
NOEL: 1,000 mg/kg
Method: OECD Test Guideline 407
Information given is based on data obtained from similar substances.

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

Octadecene

Species: Rat, Male and female
Sex: Male and female
Application Route: Inhalation
Dose: 0, 300, 1000, 3000 ppm
Exposure time: 13 wks
Number of exposures: 6 hrs/d, 5 d/wk
NOEL: 3000 ppm
Method: OECD Guideline 413
Information given is based on data obtained from similar substances.

Species: Rat, Male and female
Sex: Male and female
Application Route: oral gavage
Dose: 25, 150, or 1000 mg/kg/day
Exposure time: 4 weeks
Number of exposures: Daily
NOEL: 1000 mg/kg
Method: OECD Test Guideline 407
Information given is based on data obtained from similar substances.

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

Species: Rat, Male and female
 Sex: Male and female
 Application Route: oral gavage
 Dose: 30, 300, 1000 mg/kg/day
 Exposure time: 28 days
 Number of exposures: Daily
 NOEL: 1000 mg/kg
 Method: OECD Test Guideline 407
 Information given is based on data obtained from similar substances.

Species: Rat, Male and female
 Sex: Male and female
 Application Route: oral gavage
 Dose: 100, 500, 1000 mg/kg/day
 Exposure time: 4 weeks
 Number of exposures: Daily
 NOEL: 1000 mg/kg
 Method: OECD Guideline 422
 Information given is based on data obtained from similar substances.

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
 Information given is based on data obtained from similar substances.

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
 Information given is based on data obtained from similar substances.

Reproductive toxicity

Hexadecene

: Species: Rat
 Sex: male and female
 Application Route: Oral diet
 Dose: 0, 100, 500, or 1000 mg/kg/
 Number of exposures: once daily
 Method: OECD Guideline 421
 NOAEL F1: 1,000 mg/kg
 Information given is based on data obtained from similar substances.

Octadecene

Species: Rat
 Sex: male
 Application Route: oral gavage
 Dose: 100, 500, 1000 mg/kg/day
 Number of exposures: Daily

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

Test period: 14 days premating to mating
 Method: OECD Guideline 421
 NOAEL Parent: 1000 mg/kg
 NOAEL F1: 1000 mg/kg

Species: Rat
 Sex: female
 Application Route: oral gavage
 Dose: 100, 500, 1000 mg/kg/day
 Number of exposures: Daily
 Test period: 14 days premating to birth
 Method: OECD Guideline 421
 NOAEL Parent: 1000 mg/kg
 NOAEL F1: 1000 mg/kg

Aspiration toxicity

Hexadecene : May be fatal if swallowed and enters airways.
 Octadecene : May be fatal if swallowed and enters airways.

CMR effects

Hexadecene : Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
 Reproductive toxicity: Animal testing did not show any effects on fertility.

Octadecene : 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® C16/18/20-24 IS

Further information : Solvents may degrease the skin.

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

Hexadecene : LL50: > 1,000 mg/l
 Exposure time: 96 h
 Species: Cyprinodon variegatus (sheepshead minnow)
 static test Method: OECD Test Guideline 203
 Information given is based on data obtained from similar substances.

Octadecene : LL50: > 1000 mg/L
 Exposure time: 96 h
 Species: Cyprinodon variegatus (sheepshead minnow)
 static 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

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

Hexadecene : EL50: > 1,000 mg/l
Exposure time: 96 h
Species: Mysisidopsis bahia (mysid shrimp)
static test

Octadecene EL50: > 1000 mg/L
Exposure time: 48 h
Species: Acartia tonsa (Marine Copepod)
static test

Toxicity to algae

Hexadecene : EL50: > 1,000 mg/l
Exposure time: 72 h
Species: Skeletonema costatum
static test

Octadecene EL50: > 1000 mg/L
Exposure time: 72 h
Species: Skeletonema costatum (Marine Algae)
static test Information given is based on data obtained from similar substances.

Bioaccumulation

Octadecene : This material is not expected to bioaccumulate.

Biodegradability

Hexadecene : Result: Readily biodegradable.
71 %
Testing period: 28 d
Method: OECD Test Guideline 301
Information given is based on data obtained from similar substances.

Octadecene : This material is expected to be readily biodegradable.

Ecotoxicology Assessment**Results of PBT assessment**

Hexadecene : Non-classified vPvB substance, Non-classified PBT substance

Octadecene : Non-classified PBT substance, Non-classified vPvB substance

Additional ecological information : No data available

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.

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

Product : Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

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

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

SECTION 15: Regulatory information**National legislation****SARA 311/312 Hazards** : Acute Health Hazard

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 12 (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 Intermediate or Final VOC's (40 CFR 60.489).

US State Regulations

Pennsylvania Right To Know

: Hexadecene - 26952-14-7
Octadecene - 27070-58-2
Eicosene - 27400-78-8

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

Docosene - 29730-67-4
 Tetracosene - 36731-16-5
 Hexacosene - 64808-91-9

New Jersey Right To Know

: Hexadecene - 26952-14-7
 Octadecene - 27070-58-2
 Eicosene - 27400-78-8
 Docosene - 29730-67-4
 Tetracosene - 36731-16-5
 Hexacosene - 64808-91-9

**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

: 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.

United States of America TSCA

: On TSCA Inventory

Canada NDSL

: This product contains one or several components listed in the Canadian NDSL.

Australia AICS

: Not in compliance with the inventory

New Zealand NZIoC

: Not in compliance with the inventory

Japan ENCS

: On the inventory, or in compliance with the inventory

Korea KECI

: Not in compliance with the inventory

Philippines PICCS

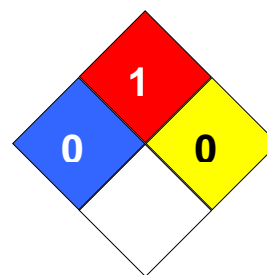
: Not in compliance with the inventory

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 : CPC00592

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.

AlphaPlus® C16/18/20-24 IS

Version 1.2

Revision Date 2015-10-13

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%		