AlphaPlus® C10-12 BLENDC 25:75

Version 1.4 Revision Date 2016-06-10

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

Product information

Product Name : AlphaPlus® C10-12 BLENDC 25:75
Material : 1109323

EC-No.Registration number

Chemical name	CAS-No. EC-No. Index No.	Legal Entity Registration number
1-Dodecene	112-41-4 203-968-4	Chevron Phillips Chemical Company LP 01-2119475509-26-0003
1-Decene	872-05-9 212-819-2	Chevron Phillips Chemical Company LP 01-2119486878-12-0006

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 Vincilaan 19
1831 Diegem
Belgium

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

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)
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
REGULATION (EC) No 1272/2008

Flammable liquids, Category 3	H226: Flammable liquid and vapor.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Acute aquatic toxicity, Category 1	H400: Very toxic to aquatic life.

Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal Word	:	Danger	
Hazard Statements	:	H226	Flammable liquid and vapor.
		H304	May be fatal if swallowed and enters airways.
		H400	Very toxic to aquatic life.
Precautionary Statements	:	**Prevention:**	
		P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
		P240	Ground/bond container and receiving equipment.
		P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
		P242	Use only non-sparking tools.
		P243	Take precautionary measures against static discharge.
		P273	Avoid release to the environment.
		Response:	
		P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
		P331	Do NOT induce vomiting.
		P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
		P391	Collect spillage.
		Storage:	
		P403 + P235	Store in a well-ventilated place. Keep cool.
		Disposal:	
		P501	Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients which must be listed on the label:
- 112-41-4 1-Dodecene

SECTION 3: Composition/information on ingredients

Molecular formula : Mixture

Mixtures

Hazardous ingredients

Chemical name	CAS-No. EC-No. Index No.	Classification (REGULATION (EC) No 1272/2008)	Concentration [wt%]
1-Dodecene	**112-41-4** **203-968-4**	Asp. Tox. 1; H304	60 - 90
1-Decene	872-05-9 212-819-2	Flam. Liq. 3; H226 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	10 - 40

For the full text of the H-Statements mentioned in this Section, see Section 16.

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 on skin, rinse well with water. If on clothes, remove clothes.

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. 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 : 55 °C (131 °F)

Suitable extinguishing media : Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.

Unsuitable extinguishing media : High volume water jet.

Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
Fire and explosion protection	:	Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition.

SECTION 6: Accidental release measures

Personal precautions	:	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
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	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7: Handling and storage

Handling

Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapors/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.
Advice on protection against fire and explosion	:	Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition.

Storage

Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

SE

Beståndsdelar	Grundval	Värde	Kontrollparametrar	Anmärkning
1-Dodecene	SE AFS	NGV	350 mg/m3	18,
	SE AFS	KTV	500 mg/m3	18,

18 Gränsvärdet avser alifatiska kolväten i ångform, dvs. upp till 12 kolatomer. Vid exponering för kolväten med mer än 12 kolatomer, som förekommer i form av aerosol, partiklar eller vätskedroppar, tillämpas gränsvärdet för organiskt damm och dimma 5 mg/m3. Gränsvärdet gäller inte för aromatfri lacknafta (< 2 viktprocent) som har eget gränsvärde.

NO

Komponenter	Grunnlag	Verdi	Kontrollparametere	Nota
1-Dodecene	FOR-2011-12-06-1358	TWA	40 ppm, 275 mg/m3	

LT

Komponentai	Pagrindas, bazė	Vertė	Kontrolės parametrai	Pastaba
1-Dodecene	LT OEL	IPRD	350 mg/m3	
	LT OEL	TPRD	500 mg/m3	

EE

Komponendid, osad	Alused	Väärtus	Kontrolliparameetrid	Märkused
1-Dodecene	EE OEL	Piirnorm	350 mg/m3	11,
	EE OEL	Lühiajalise kokkupuute piirnorm	500 mg/m3	11,
	EE OEL	Piirnorm	5 mg/m3	
	EE OEL	Piirnorm	5 mg/m3	Aerosool
	EE OEL	Piirnorm	350 mg/m3	11, Aur
	EE OEL	Lühiajalise kokkupuute piirnorm	500 mg/m3	11, Aur

11 Süsivesinike piirnormid on arvutatud auru faasile. Üle 12 süsinikuaatomiga alifaatsetel süsivesinikel (tridekaanid ja kõrgemad) on 20 °C juures küllastussisaldus < 350 mg/m3. Aerosoolsete süsivesinike piirnorm on 5 mg/m3.

Engineering measures

Adequate ventilation to control airborned 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. 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:. Flame retardant antistatic protective clothing. Workers should wear antistatic footwear.
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
Physical state	:	Liquid
Color	:	Clear, Colorless

Safety data

Flash point	:	55 °C (131 °F)
Lower explosion limit	:	No data available
Upper explosion limit	:	No data available
Molecular formula	:	Mixture
Molecular weight	:	Not applicable
pH	:	No data available
Freezing point	:	-60 °C (-76 °F)
Boiling point/boiling range	:	196 °C (385 °F)
Density	:	0,75 g/cm3 at 25 °C (77 °F)
Water solubility	:	Soluble in hydrocarbon solvents; insoluble in water.

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 : Heat, flames and sparks.

Other data : This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

SECTION 11: Toxicological information

Acute oral toxicity

1-Dodecene : LD50: > 10.000 mg/kg
Species: Rat
Sex: male
Method: Fixed Dose Method
Information given is based on data obtained from similar substances.

Skin irritation

1-Dodecene : No skin irritation

1-Decene Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.

Eye irritation

1-Dodecene : No eye irritation
Information given is based on data obtained from similar substances.

1-Decene No eye irritation

Sensitization

1-Dodecene : Did not cause sensitization on laboratory animals.

1-Decene Did not cause sensitization on laboratory animals.
Information given is based on data obtained from similar substances.

Repeated dose toxicity

1-Dodecene : Species: Rat, Male and female
Sex: Male and female
Application Route: Oral diet
Dose: 0, 100, 500, 1000 mg/kg
Exposure time: 13 wk
Number of exposures: daily
NOEL: 1.000 mg/kg
Method: OCED Guideline 408
Information given is based on data obtained from similar

substances.

Species: Rat, Male and female
Sex: Male and female
Application Route: Inhalation
Dose: 0, 300, 1000, 3000 ppm
Exposure time: 13 wk
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.

1-Decene

Species: Rat, Male and female
Sex: Male and female
Application Route: Oral
Dose: 0, 100, 500, 1000 mg/kg
Exposure time: 13 wks
Number of exposures: 7 d/wk
NOEL: 1.000 mg/kg
Method: OCED Guideline 408
Information given is based on data obtained from similar substances.

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 hr/d, 5 d/wk
NOEL: 3000 ppm
Method: OECD Guideline 413
Information given is based on data obtained from similar substances.

Reproductive toxicity

1-Dodecene : Species: Rat
Sex: male
Application Route: Oral diet
Dose: 0, 100, 500, or 1000 mg/kg
Exposure time: 44 D
Number of exposures: daily
Method: OECD Guideline 421
NOAEL Parent: 1.000 mg/kg
NOAEL F1: 1.000 mg/kg

Species: Rat
Sex: female
Application Route: Oral diet
Dose: 0, 100, 500, or 1000 mg/kg
Exposure time: 41-55 D
Number of exposures: daily
Method: OECD Guideline 421
NOAEL Parent: 1.000 mg/kg
NOAEL F1: 1.000 mg/kg

1-Decene

Species: Rat
Sex: male

Application Route: Oral diet
Dose: 0, 100, 500, 1000 mg/kg
Method: OECD Guideline 421
NOAEL Parent: 1.000 mg/kg
NOAEL F1: 1.000 mg/kg

Aspiration toxicity

1-Dodecene	:	May be fatal if swallowed and enters airways.
1-Decene		May be fatal if swallowed and enters airways.

CMR effects

1-Dodecene	:	Carcinogenicity: Not available Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Teratogenicity: Not available Reproductive toxicity: Animal testing did not show any effects on fertility.
1-Decene		Carcinogenicity: Not available Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Teratogenicity: Animal testing did not show any effects on fetal development. Reproductive toxicity: Animal testing did not show any effects on fertility.

AlphaPlus® C10-12 BLENDC 25:75
Further information : Solvents may degrease the skin.

SECTION 12: Ecological information

Toxicity to fish

1-Dodecene	:	No toxicity at the limit of solubility.
1-Decene		LC50: 0,12 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) semi-static test Method: OECD Test Guideline 203 Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates

1-Dodecene	:	No toxicity at the limit of solubility.
1-Decene		EC50: 0,56 - 1 mg/l Exposure time: 48 h Species: Daphnia Method: OECD Test Guideline 202

Toxicity to algae

1-Dodecene	:	No toxicity at the limit of solubility.

1-Decene	EC50: 1 - 1,8 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (microalgae) Method: OECD Test Guideline 201

Biodegradability

1-Dodecene	:	74,1 - 80 % Testing period: 28 d Method: OECD Test Guideline 301 This material is expected to be readily biodegradable.
1-Decene	:	This material is expected to be readily biodegradable.

Ecotoxicology Assessment

Results of PBT assessment

1-Dodecene	:	Non-classified PBT substance, Non-classified vPvB substance
1-Decene	:	Non-classified PBT substance, Non-classified vPvB substance
Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Very toxic to aquatic life.

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	:	The product should not be allowed to enter drains, water courses or the soil. 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. Do not burn, or use a cutting torch on, the empty drum.

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)
UN3295, HYDROCARBONS, LIQUID, N.O.S., 3, III, MARINE POLLUTANT, (1-DODECENE)

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
UN3295, HYDROCARBONS, LIQUID, N.O.S., 3, III, (55 °C), MARINE POLLUTANT, (1-DODECENE, 1-DECENE)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)
UN3295, HYDROCARBONS, LIQUID, N.O.S., 3, III

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))
UN3295, HYDROCARBONS, LIQUID, N.O.S., 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS, (1-DODECENE, 1-DECENE)

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
UN3295, HYDROCARBONS, LIQUID, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS, (1-DODECENE, 1-DECENE)

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)
UN3295, HYDROCARBONS, LIQUID, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS, (1-DODECENE, 1-DECENE)

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

SECTION 15: Regulatory information

National legislation

Chemical Safety Assessment

Ingredients	:	dodec-1-ene	A Chemical Safety Assessment has been carried out for this substance.	203-968-4

Chemical Safety Assessment

dec-1-ene	A Chemical Safety Assessment has been carried out for this substance.	212-819-2

Major Accident Hazard Legislation : 96/82/EC Update: 2003
Flammable.
6
Quantity 1: 5.000 t
Quantity 2: 50.000 t

: 96/82/EC Update: 2003

Dangerous for the environment
9a
Quantity 1: 100 t
Quantity 2: 200 t

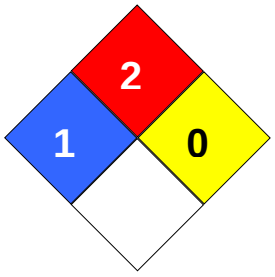
Water contaminating class (Germany) : WGK 2 water endangering

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
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: 1
Fire Hazard: 2
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 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%		

Full text of H-Statements referred to under sections 2 and 3.

H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.