



SAFETY DATA SHEET	Revision Date: 23.11.2018
	Print Date: 10.12.2018
	SDS Number: R0717829
Ceraphyl™ 28 ester ™ Trademark, Ashland or its subsidiaries, registered in various countries 826776	Version: 2.2

Conforms to EU Regulation 1907/2006/EC as amended. - SDSGHS_BE

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

1.1 Product identifier

Trade name	:	Ceraphyl™ 28 ester ™ Trademark, Ashland or its subsidiaries, registered in various countries
Registration number		01-2120742263-61-0000
Substance name		Hexadecyl lactate
Substance No.		
EC-No.		252-478-7
CAS-No.		35274-05-6

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

Recommended use : Personal care

1.3 Details of the supplier of the safety data sheet Ashland P.O. Box 8619 NL3009 AP, Rotterdam Netherlands +31 10 497 5000 (in the Netherlands), or contact your local CSR contact person EUSMT@ashland.com	1.4 Emergency telephone number +1-800-274-5263/001-859-357-3564, or contact your local emergency telephone number at 070/245.245 Product Information +31 10 497 5000 (in the Netherlands), or contact your local CSR contact person
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Short-term (acute) aquatic hazard, H400: Very toxic to aquatic life.

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Category 1

Long-term (chronic) aquatic hazard,
 Category 1

H410: Very toxic to aquatic life with long lasting
 effects.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :



Signal word : Warning

Hazard statements : H410

Very toxic to aquatic life with long lasting
 effects.

Precautionary statements : **Prevention:**
 P273
Response:
 P391
Disposal:
 P501

Avoid release to the environment.

Collect spillage.

Dispose of contents/ container to an
 approved waste disposal plant.

2.3 Other hazards**Additional advice**

No information available.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Chemical nature : organic

Hazardous components

Chemical name	CAS-No. EC-No.	Concentration (%)
Hexadecyl lactate	35274-05-6 252-478-7	>= 90,00 - <= 100,00

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SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.
- If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : The most important known symptoms and effects are described in the labelling (see Section 2.2) and/or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No hazards which require special first aid measures.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local



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circumstances and the surrounding environment.

Water spray

Foam

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Aldehydes
Burning produces irritant fumes.

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods : Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid dust formation.
Avoid breathing dust.
Material can create slippery conditions.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Comply with all applicable federal, state, and local regulations.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.



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If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid dust formation.
 Ensure all equipment is electrically grounded and bonded before beginning transfer operations.
 The material can accumulate static charge and can therefore cause electrical ignition of flammable atmospheres.
 Container hazardous when empty.
 Smoking, eating and drinking should be prohibited in the application area.
 For personal protection see section 8.
 Dispose of rinse water in accordance with local and national regulations.
 Maintain good housekeeping. Do not permit dust layers to accumulate, for example, on floors, ledges, and equipment, in order to avoid any potential for dust explosion hazards.

Advice on protection against fire and explosion : Take measures to prevent the build up of electrostatic charge.
 Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures : Avoid breathing dust. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : 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.

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

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7.3 Specific end use(s)

Specific use(s) : No Exposure Scenario is attached since the substance is registered according to REACH Annex VII (1-10 tpa).

SECTION 8: Exposure controls/personal protection
8.1 Control parameters

Contains no substances with occupational exposure limit values.

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

 Hexadecyl lactate : Fresh water
 Value: 0,0002 mg/l

8.2 Exposure controls
Engineering measures

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment

Eye protection : Safety glasses

Use eye protection according to EN 166.

Hand protection

 Material : butyl-rubber
 Break through time : 480 min
 Glove thickness : > 0,5 mm

Remarks : The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

 Skin and body protection : Wear as appropriate:
 Safety shoes



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Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Protective clothing complying with EN 13688.
Safety shoes complying with EN ISO 20345.

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter within the capabilities of the respirator/filter combination.
Where concentrations are above recommended limits or are unknown, or a cartridge type respirator is not adequate, wear a positive-pressure supplied-air respirator.

Respiratory protection complying with EN 136.
Respiratory protection complying with EN 140.
Respiratory protection complying with EN 14387.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Wax like

Colour : white, off-white

Odour : No data available

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : 23,6 °C

Boiling point/boiling range : 342 °C

Flash point : 202 °C

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : No data available



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Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0,893 - 0,905 g/cm ³ (25 °C)
Solubility(ies)	
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Oxidizing properties	: No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Product will not undergo hazardous polymerization.

10.4 Conditions to avoid



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Conditions to avoid : Keep away from heat, flame, sparks and other ignition sources.

excessive heat

10.5 Incompatible materials

Materials to avoid : Acids
Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Components:

Hexadecyl lactate

Acute oral toxicity : LD50 (Rat): > 20.000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

Hexadecyl lactate

Species: Rabbit

Method: Draize Test

Result: No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury., Product dust may be irritating to eyes, skin and respiratory system.

Components:

Hexadecyl lactate



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Species: Rabbit
Method: Draize Test
Result: No eye irritation

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:

Hexadecyl lactate

Species: Guinea pig

Assessment: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Components:

Hexadecyl lactate

Genotoxicity in vitro

- : Test Type: Ames test
Test species: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Remarks: Information given is based on data obtained from similar substances.
- : Test Type: Chromosome aberration test in vitro
Test species: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
Remarks: Information given is based on data obtained from similar substances.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Hexadecyl lactate

Species: Rat

No observed adverse effect level: 500 mg/kg

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Application Route: Dermal

Exposure time: 30 d

Remarks: Systemic effects

Information given is based on data obtained from similar substances.

Aspiration toxicity

Not classified based on available information.

Further information
Product:

Remarks: No data available

SECTION 12: Ecological information
12.1 Toxicity
Components:

Hexadecyl lactate

Toxicity to fish

: LC50 (Fish): 0,076 mg/l

Exposure time: 96 h

Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Toxicity to daphnia and other aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 0,096 mg/l

Exposure time: 48 h

Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Toxicity to algae

: EC50 (green algae): 0,019 mg/l

End point: Growth inhibition

Exposure time: 96 h

Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

M-Factor (Short-term (acute) aquatic hazard)

: 10

Toxicity to fish (Chronic toxicity)

: NOEC: 0,002 mg/l

Species: Fish

Remarks: The value is given based on a SAR/AAR approach

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 using OECD Toolbox, DEREK, VEGA QSAR models
 (CAESAR models), etc.

Toxicity to daphnia and other aquatic invertebrates
 (Chronic toxicity) : NOEC: 0,017 mg/l
 Species: Daphnia magna (Water flea)
 Remarks: The value is given based on a SAR/AAR approach
 using OECD Toolbox, DEREK, VEGA QSAR models
 (CAESAR models), etc.

M-Factor (Long-term
 (chronic) aquatic hazard) : 1

Toxicity to soil dwelling organisms : LC50: > 2.000 mg/kg
 Exposure time: 14 d
 Species: Eisenia fetida (earthworms)
 Method: OECD Test Guideline 207
 GLP:yes

12.2 Persistence and degradability
Components:

Hexadecyl lactate

Biodegradability : Result: Readily biodegradable.
 Biodegradation: 82,2 %
 Exposure time: 28 d
 Method: OECD Test Guideline 301F
 Remarks: Information given is based on data obtained from
 similar substances.

12.3 Bioaccumulative potential
Components:

Hexadecyl lactate

Partition coefficient: n-octanol/water : log Pow: 6,7 (25 °C)

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment
Components:

Hexadecyl lactate

Assessment : This substance is not considered to be persistent,



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bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

12.6 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14: Transport information

SECTION 14: Transport information

14.1 UN number

ADN: UN3077

ADR: UN3077

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: UN3077

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: UN3077

INTERNATIONAL MARITIME DANGEROUS GOODS: UN3077

RID: UN3077

14.2 UN proper shipping name



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ADN: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Propanoic acid, 2-hydroxy-, hexadecyl ester)

ADR: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Propanoic acid, 2-hydroxy-, hexadecyl ester)

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Environmentally hazardous substance, solid, n.o.s. (Propanoic acid, 2-hydroxy-, hexadecyl ester)

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Environmentally hazardous substance, solid, n.o.s. (Propanoic acid, 2-hydroxy-, hexadecyl ester)

INTERNATIONAL MARITIME DANGEROUS GOODS: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Propanoic acid, 2-hydroxy-, hexadecyl ester)

RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Propanoic acid, 2-hydroxy-, hexadecyl ester)

14.3 Transport hazard class(es)

ADN: 9

ADR: 9

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: 9

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: 9

INTERNATIONAL MARITIME DANGEROUS GOODS: 9

RID: 9

14.4 Packing group

ADN: III

ADR: III

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: III

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: III

INTERNATIONAL MARITIME DANGEROUS GOODS: III

RID: III

14.5 Environmental hazards

ADN: Environmentally hazardous

ADR: Environmentally hazardous

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Environmentally hazardous

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Environmentally hazardous


INTERNATIONAL MARITIME DANGEROUS GOODS: Environmentally hazardous

RID: Environmentally hazardous

14.6 Special precautions for user

Not applicable

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

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Ship Type: Not applicable
 Hazard code(s): Not applicable
 Pollutant Category: Not applicable

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

E1	ENVIRONMENTAL HAZARDS	Quantity 1 100 t	Quantity 2 200 t
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The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

AICS On the inventory, or in compliance with the inventory

ENCS On the inventory, or in compliance with the inventory



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KECI	On the inventory, or in compliance with the inventory
PICCS	On the inventory, or in compliance with the inventory
IECSC	On the inventory, or in compliance with the inventory
TCSI	On the inventory, or in compliance with the inventory
TSCA	On TSCA Inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

Registration number	01-2120742263-61-0000
Substance name	Hexadecyl lactate

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Further information

Revision Date: 23.11.2018

Classification procedure:

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of H-Statements

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.




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Other information : The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (+31 10 497 5000).

Sources of key data used to compile the Safety Data Sheet
 Ashland internal data including own and sponsored test reports
 The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists
 BEI : Biological Exposure Index
 CAS : Chemical Abstracts Service (Division of the American Chemical Society).
 CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
 FG : Food grade
 GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
 H-statement : Hazard Statement
 IATA : International Air Transport Association.
 IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
 ICAO : International Civil Aviation Organization
 ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"
 IMDG : International Maritime Code for Dangerous Goods
 ISO : International Organization for Standardization
 logPow : octanol-water partition coefficient
 LCxx : Lethal Concentration, for xx percent of test population
 LDxx : Lethal Dose, for xx percent of test population.
 ICxx : Inhibitory Concentration for xx of a substance
 Ecxx : Effective Concentration of xx
 N.O.S.: Not Otherwise Specified
 OECD : Organization for Economic Co-operation and Development
 OEL : Occupational Exposure Limit
 P-Statement : Precautionary Statement
 PBT : Persistent , Bioaccumulative and Toxic
 PPE : Personal Protective Equipment
 STEL : Short-term exposure limit

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STOT : Specific Target Organ Toxicity
 TLV : Threshold Limit Value
 TWA : Time-weighted average
 vPvB : Very Persistent and Very Bioaccumulative
 WEL : Workplace Exposure Level

ABM : Water Hazard Class for the Netherlands
 ADR : Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: Regulation for the Carriage of Dangerous Substances on the Rhine
 CLP : Classification, Labelling and Packaging
 CSA : Chemical Safety Assessment
 CSR : Chemical Safety Report
 DNEL : Derived No Effect Level.
 EINECS : European Inventory of Existing Commercial Chemical Substances.
 ELINCS : European List of Notified Chemical Substances
 GV: Exposure limits (DK)
 PEC : Predicted Effect Concentration
 PEL : Permissible Exposure Limits
 PNEC : Predicted No Effect Concentration
 R-phrase : Risk phrase
 REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
 RID : Regulation Concerning the International Transport of Dangerous Goods by Rail
 S-phrase: Safety phrase
 WGK : German Water Hazard Class