Technical Information

TEGOSOFT® OP

Universal emollient with skin conditioning properties

Intended use

Liquid lipophilic emollient

Benefits at a glance

- Emollient ester with low occlusivity
- Gives a pleasant skin feel
- Oxidation stable
- Good solubilizer for active ingredients

INCI (PCPC Name)

Ethylhexyl Palmitate

Chemical and physical properties (not part of specifications)

Form	liquid

Further product information (not part of specifications)

Density (g/cm³)	approx. 0.86
Viscosity at 25 °C according to Höppler (mPas)	approx. 11
Surface tension at 25 °C according to ring method (mN/m)	approx. 29
Spreadability	medium spreadability
Polarity	low polarity
Pour point following DIN ISO 3016 (°C)	approx. 1

Properties

- Medium viscous cosmetic ester with medium spreading properties
- Low polarity
- Universal emollient with skin conditioning properties
- Good solubilizer for active ingredients

Application

TEGOSOFT® OP is suitable for

- all types of creams and lotions
- body oils
- bath additives

Packaging

720 kg pallet (4 x 180 kg)

Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport and for dangerous substances
- protective measures for storage and handling
- measures in case of accidents and fires
- toxicity and ecological effects

is given in our material safety data sheets.

Guideline formulations

W/O Moisturizing Cream F 3/98	
Phase A	
ISOLAN® PDI (Diisostearoyl Polyglyceryl-3 Dimer Dilinoleate)	3.00%
TEGOSOFT® OP	9.50%
Mineral Oil (30 mPas)	9.50%
Beeswax	0.60%
Hydrogenated Castor Oil	0.40%
Phase B	
LACTIL® (Sodium Lactate; Sodium PCA; Glycine; Fructose; Urea; Niacinamide; Inositol; Sodium Benzoate; Lactic Acid)	2.00%
Glycerin	3.00%
Magnesium Sulfate Heptahydrate	1.00%
Water	71.00%
Preservative, Perfume	q.s.

Preparation:

1. Heat phase A to approx. 80 °C.
2. Add phase B (80 °C or room temperature) slowly with stirring.
3. Homogenize for a short time.
4. Cool with gentle stirring below 30 °C and homogenize again.

O/W Cream Gel F 31/02-17	
Phase A	
AXOL® C 62 Pellets (Glyceryl Stearate Citrate)	0.50%
TEGO® Alkanol 1618 (Cetearyl Alcohol)	1.50%
TEGOSOFT® DC (Decyl Cocoate)	5.00%
TEGOSOFT® OP	5.00%
TEGOSOFT® DEC (Diethylhexyl Carbonate)	4.00%
Tocopheryl Acetate	0.50%
Phase B	
Water	44.10%
GluCare® S (Sodium Carboxymethyl Beta-Glucan)	0.20%
Glycerin	4.00%
Propylene Glycol	4.00%
Panthenol	0.50%
Phase C	
TEGO® Carbomer 341 ER (Acrylates/C10-30 Alkyl Acrylate Crosspolymer)	0.45%
Water	29.55%
Phase D	
Sodium Hydroxide (10% in water)	0.70%
Phase Z	
Preservative, Perfume	q.s.

Preparation:

1. Heat phase A and B separately to approx. 70 °C.
2. Add phase A to phase B with stirring[1)].
3. Homogenize.
4. Cool with gentle stirring to approx. 60 °C and add phase C.
5. Homogenize for a short time.
6. Cool with gentle stirring and add phase D below 40 °C.

[1)]Important: If phase A has to be charged into the vessel first, phase B must be added without stirring.

O/W Skin Hydrating Cream F 12/05-34	
Phase A	
TEGO® Care 450 (Polyglyceryl-3 Methylglucose Distearate)	3.00%
TEGIN® M Pellets (Glyceryl Stearate)	2.00%
TEGO® Alkanol 18 (Stearyl Alcohol)	1.00%
TEGOSOFT® CT (Caprylic/Capric Triglyceride)	8.00%
TEGOSOFT® OP	8.90%
TEGOSOFT® DC (Decyl Cocoate)	2.00%
CERAMIDE III (Ceramide NP)	0.10%
Phase B	
Glycerin	3.00%
Water	66.00%
Phase C	
TEGO® Carbomer 134 (Carbomer)	0.20%
TEGOSOFT® OP (Ethylhexyl Palmitate)	0.80%
Phase D	
Sodium Hydroxide (10% in water)	q.s.
Phase E	
TEGO® Smooth (Betaine; Urea; Potassium Lactate; Sodium Polyglutamate; Hydrolyzed Sclerotium Gum)	5.00%
Preservative, Perfume	q.s.

Preparation:

1. Heat phase A and B separately to approx. 80 °C.
2. Add phase A to phase B with stirring[1)].
3. Homogenize.
4. Cool with gentle stirring to approx. 60 °C and add phase C.
5. Homogenize for a short time.
6. Cool with gentle stirring and add phase D below 40 °C and E at 30 °C.

[1)] Important: If phase A has to be charged into the vessel first, phase B must be added without stirring.

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Evonik Nutrition & Care GmbH
Goldschmidtstraße 100 45127 Essen, Germany
P.O.BOX 45116 Essen PHONE + 49 201 173-2854 FAX +49 173-1828

personal-care@evonik.com www.evonik.com/personal-care

Product specification

Material TEGOSOFT OP
Spec.Code K00 STANDARD

Evonik Nutrition & Care GmbH
Business Line Personal Care
Goldschmidtstrasse 100
45128 Essen
Phone: +49 (201) 173-2524
Fax: +49 (201) 173-1828
http://www.evonik.com/personal-care
personal-care@evonik.com

Inspection Characteristics	Method	Limits	Units	Z
Refractive index / 25°C	GM_0120_01	1.4445-1.4465		X
Density / 20°C	GM_0110_01	0.8570-0.8630	g/ml	X
Solidificationspoint	GM_0151_01	-5.0--2.0	°C	X
Hydroxyl value	GM_0020_01	<=3.0	mg KOH/g	X
Iodine value	GM_0050_01	<=1.00	g I/100g	X
Acid Value	GM_0010_01	<=0.50	mg KOH/g	X
Saponification Value	GM_0030_04	146.0-156.0	mg KOH/g	X
Water Content	GM_0080_01	<=0.10	%	X

Report on inspection certificate: X = specific/actual value, C = unspecific value/conformity, T = not reported

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The Standard Test Methods can be obtained from specialized publishers. Evonik's test methods are available on request.

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TEGOSOFT® OP

Product data record

1. General information

1.1 Manufacturer/Supplier

Evonik Nutrition & Care GmbH
Personal Care Business Line
Goldschmidtstrasse 100
D-45127 Essen / Germany
Phone: +49 (201) 173-2524
Fax: +49 (201) 173-1828
personal-care@evonik.com
http://www.evonik.com/personal-care

1.2 Product Description

1.2.1 Raw material category Liquid Lipophilic Emollient

1.2.2 Ingredients according to INCI

Ethylhexyl Palmitate

1.2.3 Composition

Components	Source	Ratio
Ethylhexyl Palmitate	vegetable / synthetic	100 %

This composition information serves for information of our customers only.
It is neither relevant for the composition listing according to Regulation (EC) No 1223/2009, nor does it reflect the chemical composition according to the different chemical regulations in the world which is disclosed in the table "information on ingredients/hazardous components" in the relevant parts of the respective (Material) Safety Data Sheets.

1.2.4 Solvents, preservatives and other additives

	CAS No.	EINECS / EC No.	content	Function
no additives				

No components which are listed in Annex II of the Regulation (EC) No 1223/2009 and its modifications and updates are added to and are not to be expected in the above mentioned product due to the raw materials used and the production process.

2. Information on production process

General description of production process:
Esterification product

The product is not irradiated.

TEGOSOFT® OP is produced in the strictest absence of any animal derived material of any type.

Residual plant based source (dominant origin of main constituents): palm kernel oil

GMO-Status:
The item does not contain ingredients that might have been derived from GM sources.
However max 0.9 % cross-contamination is possible. Any protein or DNA is not present.
Consequently the product will be PCR negative when tested.

2.1 By products

		method
Residual solvents	not applicable	
Free amines	not applicable	Chromatography
Nitrosamines	not applicable	
Monochloroacetic acid	not applicable	Chromatography
Dichloroacetic acid	not applicable	Chromatography
1,4-Dioxane	not applicable	
Pesticides	meets the valid regulatory requirements for limits on agricultural pesticides	
Total heavy metals	max. 20 ppm	AAS-ICP
As, Cd, Co, Cr, Hg, Ni, Pb, Sb	Each < 1 ppm	AAS-ICP
Latex	not to be expected in the product due to the raw materials used and the production process	
VOC	< 3 % according to SR (Swiss Right) 814.018	

2.2 CMR (Carcinogenic, Mutagenic or Reprotoxic)

The use in cosmetic products of substances classified as CMR substances, of category 1A or 1B or 2 under Part 3 of Annex VI to Regulation (EC) No 1272/2008 shall be prohibited.

Further Information:
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:342:0059:0209:en:PDF

Some of the CMR substances mentioned below and listed in Annex VI to Regulation (EC) No 1272/2008 are used as starting materials or solvents for the production of our cosmetic raw materials and may require reporting under California Proposition 65 or the Safe Cosmetics Act, SB 484.

The presence of these prohibited substances has to be seen as non-intended. It is stemming

from impurities of the starting materials or the manufacturing process which is technically unavoidable in good manufacturing practice.

CMR substance	Starting material	max. concentration	method
Ethylene Oxide	no		
Propylene Oxide	no		
Octamethylcyclotetrasiloxane (D4)	no		
2-Ethylhexanoic Acid	no		
n-Hexane	no		
Methyl Chloride	no		
Dimethyl Sulphate	no		

2.3 "Allergens" according to the Regulation (EC) No 1223/2009

The presence of substances, the mentioning of which is required under the column 'Other' in Annex III, shall be indicated in the list of ingredients in addition to the terms parfum or aroma.

The cosmetic raw materials and the cosmetic actives supplied by Evonik Personal Care are manufactured without the use of perfumes and fragrances. An analytical proof for the absence in traces of the substances to be mentioned in addition to the terms parfum or aroma is not performed in cosmetic raw materials, which are chemically produced.

None of these substances have been intentionally added to our cosmetic raw materials or are formed during the manufacturing process according to our knowledge of the chemistry.

2.4 Food Ingredients listed in Annex II of Regulation (EU) No 1169/2011

None of these substances have been intentionally added to our cosmetic raw materials or are formed during the manufacturing process according to our knowledge of the chemistry.

3. Microbiological status

Total Viable Count	max. 100 cfu/g
Pathogens*	absent/g

*Pathogens are: Enterobacteria, Pseudomonas, Enterococci, Candida albicans, Staphylococci

4. Shelf life / storage conditions

24 months after production (unopened original packaging)

5. Regulatory Status

5.1 Customs tariff number 29157040

5.2 Regulatory status (chemical regulations)

Europe

Components	REACH status	CAS No.	EINECS / EC No.
Ethylhexyl Palmitate	Reg. No. 01-2119974122-42	29806-73-3	249-862-1

Other countries

Country		yes / no	Remark
Australia	AICS:	yes	
China	IECSC:	yes	
Canada	DSL: NDSL:	yes	
Taiwan	TCSI:	yes	

In the following countries the relevant authorities currently do not require pre-market approval for cosmetic raw materials:

Brazil, Japan, South Korea, Philippines, USA

5.2.1 Regulatory status (cosmetic regulation)

Country		yes / no	Remark
China	CFDA:	yes	
Japan	JSQI:	yes	JSQI No. 540074, but specifications not controlled

6. Toxicology and Ecotoxicology

Refer to summary of ecotoxicological and toxicological data