TEGOSOFT® LSE 65 K Soft

Hydrophilic Emollients

- Blend of sucrose esters with fatty acids from coconut oil
- Provides a pleasant re-fatting effect
- Increases foam density and creaminess
- Increases the viscosity in common surfactant combinations
- Vegetable source
- Preservative free
- PEG-free
- Conforms with the eco-label criteria for shampoos and body washes

Personal Care

INCI name (CTFA name)

Sucrose Cocoate

Chemical and physical properties (not part of specifications)	
Form	paste
Colour	light yellow

Properties

TEGOSOFT® LSE 65 K Soft is a blend of sucrose esters with fatty acid esters from coconut oil produced from natural, renewable sources: sucrose and vegetable fat. It is solvent-free, readily biodegradable (aerobic & anaerobic) and has low aquatic toxicity. It conforms to eco-label criteria for shampoos and body washes.

TEGOSOFT® LSE 65 K Soft is a re-fatting agent designed for use in skin and hair cleansing formulations providing the following advantages:

- very mild to skin and eyes
- improves skin feel
  - during washing process
  - after feel (softness and smoothness)
- improves foam creaminess and stability
- thickening properties in common surfactant combinations
- suitable for clear products
- foam stabilizing

Improvement of foam quality and skin feel

Figure 1 shows the results of a sensory hand wash test in comparison to the market standard PEG-7 Glyceryl Cocoate.
TEGOSOFT® LSE 65 K Soft outperforms the market standard in the essential properties foam creaminess and skin feel.

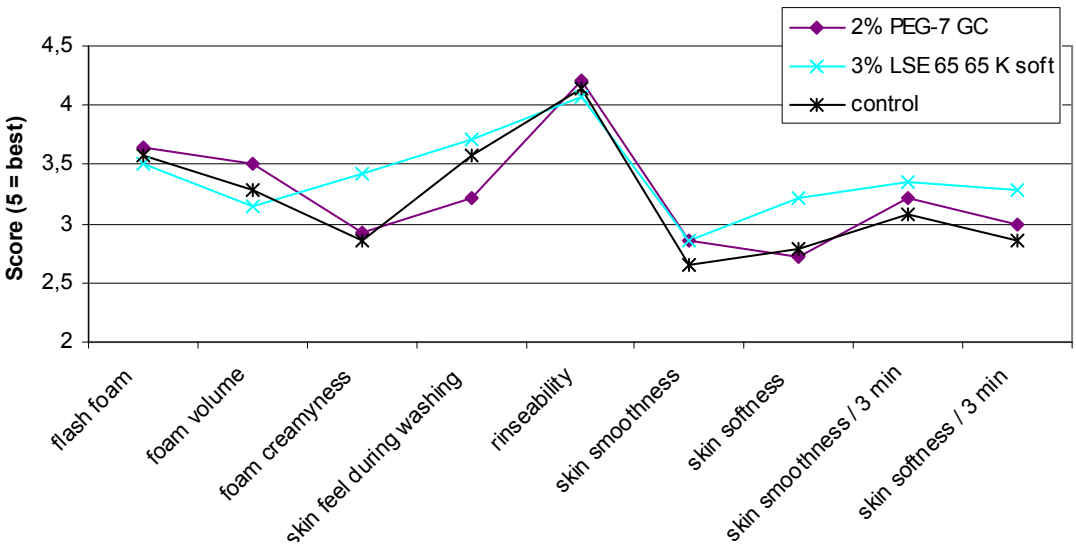

Figure 1: results of sensory hand wash tests 9 % SLES / 3 % CAPB; 7 Panelists

Thickening property

Figure 2 shows an increasing viscosity effect due to the addition of TEGOSOFT® LSE 65 K Soft into a surfactant base, comprising of 11.25 % SLES, 3.75 % CAPB and 0.7 % NaCl in comparison to the market standard, PEG-7 Glyceryl Cocoate.

Low concentrations of TEGOSOFT® LSE 65 K Soft appreciably increase viscosity while PEG-7 Glyceryl Cocoate does not affect viscosity.

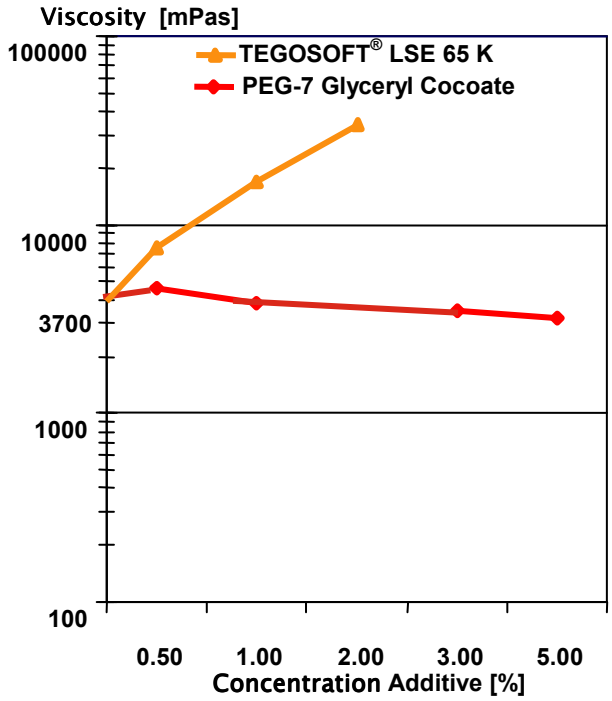

Figure 2: Thickening effect of TEGOSOFT® LSE 65 K 9 % SLES / 3 % CAPB / 0.8 % NaCl

Application

TEGOSOFT® LSE 65 K Soft can be added to hair and body cleansing formulations and is suitable for clear products. It is especially recommended for use in very mild cleansing products. It can also be used as moisturizers in skin care products (creams and lotions).

Preparation

With regard to the chemical characteristics of the products we recommend that TEGOSOFT® LSE 65 K Soft is heated during processing to approx. 40 °C and thoroughly mixed before processing.

It should be added directly to the concentrated primary surfactant.

Storage

At higher temperatures (> 25 °C) TEGOSOFT® LSE 65 K Soft might separate into two phases of different viscosities. If this occurs the sample should be heated to 40 °C and mixed thoroughly before use. This does not impact product performance.

Hints for analytical measurements / non-usage of complete package

If the total container of TEGOSOFT® LSE 65 K Soft is not used (mainly for analytical purpose), we recommend the following mixing procedure in order to achieve similar analytical results as compared to the certificate of analysis:

- Temper the drum 10 – 15 hours at 45 – 50 °C.
- In order to avoid water loss, open the pail without removing the lid completely.
- Mix for 2 hours with a simple cement mixing blade (see figure 3) at 300 – 500 rpm.
- Move the blade up and down during the mixing procedure.
- Take the sample directly after mixing.

Note: This procedure reduces water loss by less than 0.3 %.

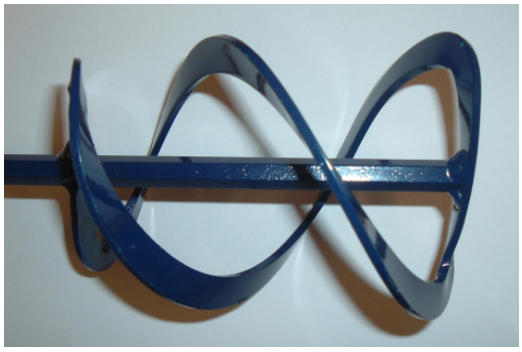

Figure 3: Mixing equipment (cement mixer, l = 14 cm) to homogenize TEGOSOFT® LSE 65 K soft (mainly before analytical tests)

Recommended usage concentration

for cleansing formulations	0.7 – 4.0 %
for emulsions	3.0 – 5.0 %

Packaging

400 kg pallet (16 x 25 kg can)

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 provided in our material safety data sheets.

Guide Line Formulations

Shower Gel for Sensitive Skin **KA 05272**	
Sodium Laureth Sulfate (28 %)	15.0 %
TEGOSOFT® GC (PEG-7 Glyceryl Cocoate)	1.0 %
TEGOSOFT® LSE 65 K Soft	1.5 %
REWOPOL® SB CS 50 B (Disodium Laurylcitrate Sulfosuccinate; Sodium Laureth Sulfate)	7.5 %
Water	61.5 %
TEGO® Betain F 50 (Cocamidopropyl Betaine)	9.0 %
TEGO® Betain 810 (Capryl/Capramidopropyl Betaine)	4.0 %
ANTIL® 200 (PEG-200 Hydrogenated Glyceryl Palmate; PEG-7 Glyceryl Cocoate)	2.5 %
Preservative, Perfume	q.s.
Preparation: Mix the ingredients in the given order. Adjust the pH value with Citric Acid to 6.0.	

Shower Bath – PEG and Sulfate-free **FM 11124**	
REWOTERIC® AM C (Sodium Cocoamphoacetate)	15.0 %
REWOPOL® SB F 12 P (Disodium Lauryl Sulfosuccinate)	3.8 %
Water	61.7 %
TEGOSOFT® LSE 65 K Soft	2.5 %
ANTIL® HS 60 (Cocamidopropyl Betaine, Glyceryl Laurate)	4.0 %
TEGO® Betain F 50 (Cocamidopropyl Betaine)	13.0 %
Preservative, Perfume	q.s.
Preparation: Mix the ingredients in the given order at approximately 30 °C. Adjust the pH value with Citric Acid to 5.5. Finally add preservatives as required.	

Clear Baby Bubble Bath, Sulfate-free **ST-BB 1**	
TEGOSOFT® GC (PEG-7 Glyceryl Cocoate)	2.0 %
Bisabolol	0.1 %
TEGO® Betain F 50 (Cocamidopropyl Betaine)	40.0 %
REWOPOL® SB FA 30 B (Disodium Laureth Sulfosuccinate)	15.0 %
TEGOSOFT® LSE 65 K Soft	2.0 %
Panthenol	0.2 %
Water	36.9 %
ANTIL® 171 (PEG-18 Glyceryl Oleate/Cocoate)	3.0 %
REWOMID® SPA (Isostearamide MIPA)	0.8 %
Preservative, Perfume	q.s.

Preparation:

Mix the ingredients in the given order and stir while slightly warming up. Adjust the pH value at room temperature with Citric Acid to 5.5 and the desired viscosity with NaCl. Finally add preservatives as required.

2 in1 Shampoo for Kids **VK 54/4**	
Sodium Laureth Sulfate (28 %)	20.0 %
REWOPOL® SB FA 30 B (Disodium Laureth Sulfosuccinate)	6.0 %
TEGOSOFT® LSE 65 K Soft	2.5 %
ABIL® Quat 3272 (Quaternium-80)	2.0 %
Water	54.9 %
Polyquaternium-10 (Polymer JR 400, Amerchol)	0.1 %
TEGO® Betain F 50 (Cocamidopropyl Betaine)	7.0 %
VARISOFT® PATC (Palmitamidopropyltrimonium Chloride)	2.5 %
REWODERM® LI S 80 (PEG-200 Hydrogenated Glyceryl Palmate; PEG-7 Glyceryl Cocoate)	3.0 %
TEGO® Pearl N 100 (Glycol Distearate; Steareth-4)	2.0 %
Preservative, Perfume	q.s.

Preparation:

Stir the PQ-10 into the water and let it swell. Mix the ingredients in the given order.

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EVONIK INDUSTRIES

Edition 6
06 January 2012
Mat. Number 201737

TEGOSOFT® LSE 65 K Soft

Product data record

1. General information

1.1 Manufacturer / Supplier

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Goldschmidtstrasse 100
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1.2 Product Description

1.2.1 Raw material category Hydrophilic Emollient

1.2.2 Ingredients according to INCI

Sucrose Cocoate

1.2.3 Composition

Components	Source	Ratio
Sucrose Cocoate	vegetable	
Water		

1.2.4 Solvents, preservatives and other additives

Ingredient	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® LSE 65 K Soft is produced in the strictest absence of any animal derived material of any type.

Origin of vegetable starting material: cocos, sugar beet

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
1,4-Dioxane	not applicable	
Residual solvents	not applicable	
Residual monomers	not applicable	
Dichloroacetic acid	not applicable	Chromatography
Monochloroacetic acid	not applicable	Chromatography
Free amines	not applicable	
Pesticides	meets the valid regulatory requirements for limits on agricultural pesticides	
Nitrosamines	not applicable	
Heavy metals (Cu; Pb; Sn; Pt; Pd; Hg; As; Cd; Ni)	max. 20 ppm	AAS-ICP
Hg; As; Cd; Ni respective	< 1 ppm	AAS-ICP
Latex	not to be expected in the product due to the raw materials used and the production process	
Phthalates	Annex II forbidden use not to be expected in the product due to the raw materials used and the production process	
Glycol Ethers	Annex III restricted use 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	

Diethylene Glycol	EU: not to be expected in the product due to the raw materials used and the production process	
	Non-EU: not to be expected in the product due to the raw materials used and the production process	

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 listed in Annex VI to Regulation (EC) No 1272/2008 are used as starting materials for the production of our cosmetic raw materials.

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

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 mention 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 IIIa of Commission Directive 2007/86/EC.

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

4. Shelf life / storage conditions

24 months after production (unopened original packaging)

5. Regulatory Status

5.1 Customs tariff number 29381000

5.2 Regulatory status (chemical regulations)

Europe

Components	REACH status	CAS No.	EINECS / EC No.
Sucrose Cocoate	pre-registered	91031-88-8	292-993-4

Other countries

Country		yes / no	Remark
Australia	AICS:	yes	
China	IECSC:	yes	
Canada	DSL: NDSL:	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	SFDA:	yes	
Japan	JSQI:	yes	504399, but specifications not controlled

6. Toxicology and Ecotoxicology

Refer to summary of ecotoxicological and toxicological data

7. Certificates

none	

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Product specification

TEGOSOFT LSE 65 K SOFT

Substance No: 201737
Spec.Code: S00: STANDARD
Version: 4
Version from: 28.01.2009
Print-out date: 03.08.2011

Insp. Characteristic	Method	Limits	Unit	
Iodine value	GM_0050_04	< = 5,00	g I/100g	X
pH-Value 5 %	GM_0132_02	6,5-7,5		X
Saponification Value	GM_0030_01	47,0-57,0	mg KOH/g	X
Water Content	GM_0080_01	33,00-37,00	%	X

Print on inspection document:
X = Actual measured value reported.
C = 'Conforms' is printed as characteristic value.

before sampling, product has to be homogenize

This print-out is valid unsigned.