

TEGOSOFT® TN / TEGOSOFT® TN 2

Emollient esters that easily solve lipophilic active ingredients

- Solvents for oil soluble UV filters
- Especially suitable for sun care and skin care products
- Give a pleasant, non-oily skin feel
- Medium viscosity

Personal Care

INCI Name (PCPC Name)

TEGOSOFT® TN / TEGOSOFT® TN 2:

C12–15 Alkyl Benzoate

**Chemical and physical properties
(not part of specifications)**

Form	liquid
Color	clear

**Further product information
(not part of specifications)**

Density (g/cm ³)	approx. 0.92
Viscosity at 25 °C according to Höppler (mPas)	approx. 12
Surface tension at 25 °C according to ring method (mN/m)	approx. 32
Spreadability	medium spreading
Polarity	very high polarity
Pour point following DIN ISO 3016 (°C)	approx. -6

**Maximum solubility of UV filters
in TEGOSOFT® TN [%]**

Benzophenone-3	15
4-Methylbenzylidene Camphor	30
Butyl Methoxy-dibenzoylmethane	16

Note:

TEGOSOFT® TN 2 is available only out of NAFTA region and TEGOSOFT® TN for all other regions.

Properties

- Very high polarity with medium viscosity
- Solvents for oil soluble UV filters
- Dispersing agents for pigments and bentones
- Extender for perfume oils
- Gives a pleasant, non-oily skin feel
- Non-comedogenic

Application

TEGOSOFT® TN / TEGOSOFT® TN 2 is especially suitable for

- Sun care creams, lotions, oils
- Skin care preparations
- Antiperspirants
- Decorative cosmetics
- Bath oils
- Conditioning shampoos

Packaging

TEGOSOFT® TN: 800 kg pallet (4 x 200 kg drum)

TEGOSOFT® TN 2: 720 kg pallet (4 x 180 kg drum)

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 accidents and fires
- toxicity and ecological effects

is given in our material safety data sheets.

Guideline Formulations

High Sun Protection Lotion O/W SPF 50 1/3 UVA Ma 30/07-2	
Phase A	
ABIL® Wax 9840 (Cetyl Dimethicone)	0.5%
TEGOSOFT® TN (C12-15 Alkyl Benzoate)	5.0%
REWOPAL® PIB 1000 (Polyisobutene)	0.5%
TEGO® Carbomer 341 ER (Acrylates/C10-30 Alkyl Acrylate Crosspolymer)	0.2%
Xanthan Gum	0.2%
TEGO® Sun T 805 (Titanium Dioxide; Trimethoxycaprylsilane)	1.5%
Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine (Tinosorb S, BASF)	4.0%
Octocrylene	10.0%
Butyl Methoxydibenzoylmethane	4.0%
Phase B	
TEGO® Care CG 90 (Cetearyl Glucoside)	0.5%
Glycerin	4.0%
Water	55.6%
Phase C	
Alcohol	5.0%
Phenoxyethanol, Methylparaben, Propylparaben, Ethylparaben (Phenonip XB, Clariant)	1.0%
Phase D	
Methylene Bis-Benzotriazolyl Tetramethylbutylphenol (Tinosorb M, BASF)	8.0%
Phase E	
Sodium Hydroxide (10% in water)	q.s.
Preparation:	
<ol style="list-style-type: none"> Heat phase A and B separately to approx. 80 °C. Add phase A to phase B with stirring.¹ Homogenize. Cool with gentle stirring to approx. 40 °C and add phases C and D in the given order. Homogenize for a short time. Cool with gentle stirring and add phase E below 30 °C. 	
¹ Important: If phase A has to be charged into vessel first, phase B must be added without stirring.	

O/W Sun Care Lotion Protect & Bronze SG 14/11-1	
Phase A	
AXOL® C 62 Pellets (Glyceryl Stearate Citrate)	2.0%
TEGO® Alkanol 1618 (Cetearyl Alcohol)	1.0%
TEGOSOFT® TN (C12-15 Alkyl Benzoate)	4.0%
TEGOSOFT® XC (Phenoxyethyl Caprylate)	8.0%
Cyclomethicone	3.0%
Octocrylene	9.0%
Butyl Methoxydibenzoylmethane	2.0%
Ethylhexyl Salicylate	2.0%
Tocopheryl Acetate	0.5%
Xanthan Gum (Keltrol F, CP Kelco)	0.5%
TEGO® Sun T 805 (Titanium Dioxide; Trimethoxycaprylsilane)	1.5%
Phase B	
Water	52.3%
Glycerin	3.0%
Panthenol	1.0%
Phase C	
TEGOSOFT® TN (C12-15 Alkyl Benzoate)	2.0%
TEGO® Carbomer 341 ER (Acrylates/C10-30 Alkyl Acrylate Crosspolymer)	0.2%
Phase D	
Sodium Hydroxide (10% in water)	q.s.
Phase E	
Butylene Glycol; Acetyl-L-Tyrosine; Hydrolyzed Vegetable Protein; Adenosin Triphosphate; Riboflavin (Unipertan VEG-2002, Induchem AG)	5.0%
Phase Z	
Preservative, Perfume	q.s.
Preparation:	
<ol style="list-style-type: none"> Heat phase A to approx. 80 °C and disperse the titanium dioxide. Heat phase B separately to approx. 80 °C. Add phase A to phase B slowly while stirring. Homogenize. Cool down to approx. 60 °C and add phase C. Homogenize for a short time. Cool down to approx. 40 °C. Add phase D and stir well. Add phase E and cool down while stirring. 	

O/W Cream F 84/96	
Phase A	
TEGO® Care 450 (Polyglyceryl-3 Methylglucose Distearate)	3.0%
TEGIN® M Pellets (Glyceryl Stearate)	2.0%
TEGO® Alkanol 18 (Stearyl Alcohol)	1.0%
TEGOSOFT® liquid (Cetearyl Ethylhexanoate)	10.0%
TEGOSOFT® P (Isopropyl Palmitate)	7.5%
TEGOSOFT® TN (C12-15 Alkyl Benzoate)	4.5%
Ethylhexyl Methoxycinnamate	2.0%
Tocopheryl Acetate	0.5%
Phase B	
Glycerin	3.0%
Water	65.0%
Phase C	
TEGO® Carbomer 134 (Carbomer)	0.2%
TEGOSOFT® P (Isopropyl Palmitate)	0.8%
Phase D	
Sodium Hydroxide (10% in water)	0.5%
Perfume, Preservative	q.s.
Preparation:	
<ol style="list-style-type: none"> Charge with phase B and heat to approx. 70 °C. Heat phase A to approx. 70 °C and add to phase B with stirring. Homogenize. Cool with gentle stirring and add phase C at approx. 60 °C and homogenize again. Add phase D at approx. 40 °C. 	

Teen pure – Facial Anti-acne Lotion WR 16/00-7	
Phase A	
TEGOSOFT® TN (C12-15 Alkyl Benzoate)	6.0%
TEGOSOFT® APM (PPG-3 Myristyl Ether)	6.0%
Stearic Acid	1.0%
Phytosphingosine (Phytosphingosine)	0.2%
Phase B	
Glycerin	3.0%
TEGO® Care CG 90 (Cetearyl Glucoside)	1.0%
Water	81.4%
Phase C	
TEGO® Carbomer 141 (Carbomer)	0.2%
TEGOSOFT® OS (Ethylhexyl Stearate)	0.8%
Phase D	
Sodium Hydroxide (10% in water)	0.4%
Phase Z	
Preservative, Perfume	q.s.
Preparation:	
<ol style="list-style-type: none"> Heat phases A and B separately to approx. 90 °C. Add phase A to phase B with stirring.¹ Homogenize. Cool with gentle stirring to approx. 60 °C and add phase C. Homogenize for a short time. 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.	

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(Status: April, 2008)