

TECHNICAL DATASHEET

Cosphaderm® TOM

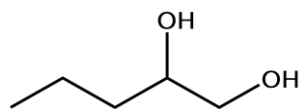
1.1 General information

Trade name:	Cosphaderm® TOM
Item no.:	01-14-xxxx
Supplier:	Cosphatec GmbH Hopfenmarkt 33 20457 Hamburg Germany
INCI name:	Pentylene Glycol, Glyceryl Caprylate, Glyceryl Undecylenate
CAS No.:	5343-92-0, 26402-26-6, -
EINECS/ EC No.:	226-285-3, 247-668-1, 918-906-8
IECIC:	Pentylene Glycol, Glyceryl Caprylate, Glyceryl Undecylenate

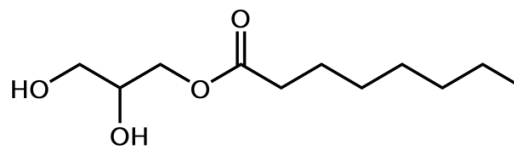
1.2 Product composition

INCI name	CAS No.	%
Pentylene Glycol	5343-92-0	25-50
Glyceryl Caprylate	26402-26-6	25-50
Glyceryl Undecylenate	123759-97-7	10-25

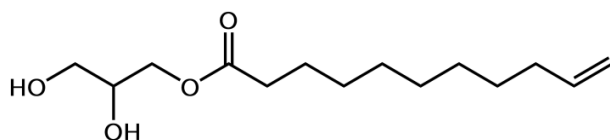
1.3 Chemical structure



Pentylene Glycol



Glyceryl Caprylate



Glyceryl Undecylenate

1.4 Product short description

Cosphaderm® TOM is a 100 % natural liquid emollient and humectant with excellent broadband antimicrobial activity. It is an easy-to-apply, colourless and nearly odourless multifunctional raw material suitable for all kinds of cosmetic formulations including baby and oral care products.

Numerous challenge tests have shown Cosphaderm® TOM to be a very efficient alternative preservative in a wide range of cosmetic formulations. The synergistic effect between the three components results in a significant improvement of antimicrobial and especially antifungal activity when compared to the single ingredients. At the same time, the potential for emulsion-destabilization originating from the Glyceryl Esters is reduced due to the presence of Pentylene Glycol.

1.5 Application

Recommended concentration:	1.6 %
Conditions:	water dispersible (turbid solution) and soluble in oils, alcohols and diols
Hints:	avoid long term heating (> 30 min) at temperatures > 80 °C Method 1: add to the water phase and disperse it Method 2: add to the oil phase Method 3: add it to the final formulation

2.1 Specified data analyzed per batch

Appearance:	transparent to light yellowish liquid (visual)
Refractive index:	1.439 – 1.459 (Refractometric)
Density:	0.98 – 1.02 g/cm ³ (Pycnometric)

Glyceryl monooctanoate:	min 30.0 % (GC-FID)
Glyceryl monoundecylenate:	min 7.0 % (GC-FID)
Water content:	max 1.0 % (w/w) (Karl-Fischer-Titration)
Acid value:	max 1.8 mg KOH/g (VDLUFA 5.4.5)
Saponification value:	max 250 mg KOH/g (VDLUFA 5.4.7)

3.1 Physical and chemical properties

Molecular formula:	Pentylene Glycol:	$C_5H_{12}O_2$
	Glyceryl Caprylate:	$C_{11}H_{22}O_4$
	Glyceryl Undecylenate:	$C_{14}H_{26}O_4$
Molecular weight:	Pentylene Glycol:	104.15 g/mol
	Glyceryl Caprylate:	218.29 g/mol
	Glyceryl Undecylenate:	258.35 g/mol
Appearance:	transparent to light yellowish liquid (visual)	
Odour:	characteristic	
Solubility:	water dispersible, soluble in oil, alcohols and diols	

3.2 Packing and Storage conditions

Packing sizes:	25 kg plastic containers, 200 kg plastic drums
Storage conditions:	Should be stored in the air-tight original sealed container indoors between 15 and 25 °C. Low temperatures may lead to solidification (freezing) and may require that the product is gently warmed to approx. 40 °C and agitated prior to use. Excessive heat may cause accelerated degradation.
Shelf life:	At least 18 months if unopened and stored under proper conditions

4.1 Regulatory compliance

Pentylene Glycol (CAS: 5343-92-0) is included/listed in the following international inventories:

EINECS (Europe); TCSI (Taiwan); ENCS (Japan); TSCA (USA); NDSL (Canada); KECI (Korea); IECSC (China); AICS (Australia); PICCS (Philippines); NZIoC (New Zealand)

Glyceryl Caprylate (CAS: 26402-26-6) is included/listed in the following international inventories:

EINECS (Europe); TCSI (Taiwan); ENCS (Japan); TSCA (USA); NDSL (Canada); KECI (Korea); IECSC (China); AICS (Australia); NZIoC (New Zealand); PICCS (Philippines)

Glyceryl Undecylenate is included/listed in the following international inventories:

TCSI (Taiwan), JCLS (Japan), IECIC (China), TGA (Australia)

4.2 Regulatory status for cosmetic application

Product complies with Regulation (EU) No. 1223/2009 in all the defined requirements.

4.3 Additives

Product contains only the specified ingredients. No other substances like preservatives, antioxidants, fragrances, colorants or other are added.

4.4 Impurities

	Not expected*	Present [#]	ppm
BSE/TSE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Dioxin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Formaldehyde	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Gluten	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Lactose	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Pesticides	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Phthalates	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Residual solvents	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Heavy metals	ppm		
	total	≤ 10	

4.5 Allergens

Product does not contain any of the 26 allergenic flavors or fragrances listed in Regulation (EC) No. 1223/2009 Annex III.

4.6 VOC

Product does not contain any additional volatile organic compound.

4.7 CMR

Product is not rated as CMR (category 1A, 1B and 2) and does not contain any ingredient rated as CMR according to Regulation (EC) No. 1223/2009 in association with Regulation (EC) No. 1272/2008/EC.

4.8 SVHC

Product is neither listed as SVHC substances nor contains any material with is listed as SVHC substance.

4.9 Nanomaterial

Product is not embraced by article 16 Regulation (EC) No. 1223/2009.

4.10 Animal testing

The Cosphatec GmbH has not conducted any animal testing for cosmetic purpose since March 11th 2009.

4.11 Irradiation

Product has not been irradiated in any step of the entire production process.

4.12 Origin

Substances (INCI name)	Synthetic	Vegetal	Biotechnology
Glyceryl Caprylate	<input type="checkbox"/>	<input checked="" type="checkbox"/> Name of the plant: Vegetable oil Origin: Europe, South Asia	<input type="checkbox"/> Microorganism used:

Pentylene Glycol	<input type="checkbox"/>	<input checked="" type="checkbox"/> Name of the plant: Sugarcane or corn Plant part used: Sugarcane bagasse or corn cobs Origin: South Africa or China	<input type="checkbox"/> Microorganism used:
Glyceryl undecylenate	<input type="checkbox"/>	<input checked="" type="checkbox"/> Name of the plant: <i>Ricinus communis</i> (undecylenic acid), <i>Brassica napus</i> (glycerine) Origin: <i>Ricinus communis</i> from Asia <i>Brassica napus</i> from Europe	<input type="checkbox"/> Microorganism used:

4.13 GMO

The product is not subject to labelling according to Regulations (EC) No. 1829/2003 and 1830/2003.

4.14 Certifications

COSMOS

Other Information

This information and our technical application advice are given to the best of our knowledge, but they are for information purposes only and given without responsibility. The advice doesn't exempt you from doing your own testing, particularly with regard to the qualification of our products for its intended processes and purposes. Application, use and handling of our products take place out of our control and are solely your responsibility. The sale of our products occurs according to our current general sales terms and delivery conditions.

* not expected to be present due to raw materials, production process and used equipment. Not regularly analysed.

#expected to be present due to raw materials, production process and used equipment. Periodically analysed.