

TECHNICAL DATASHEET

Cosphaderm® GMCY

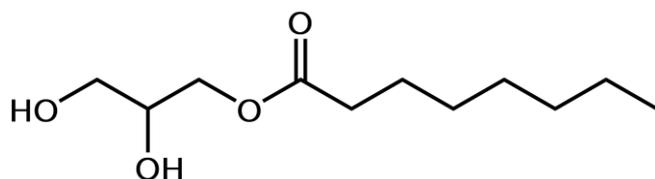
1.1 General information

Trade name:	Cosphaderm® GMCY
Item no.:	01-003-xxxx
Supplier	Cosphatec GmbH Hopfenmarkt 33 20457 Hamburg Germany
Chemical name:	2,3-dihydroxypropyl octanoate
Other names:	Glycerylmonocaprylate, Glycerylmono-octanoate, Food additive E 471
INCI name:	Glyceryl caprylate
CAS No.:	26402-26-6
EINECS/ EC No.:	247-668-1
IECIC:	Glyceryl caprylate

1.2 Product composition

INCI name	CAS No.
Glyceryl caprylate	26402-26-6

1.3 Chemical structure



1.4 Product short description

Cosphaderm® GMCY is a high purity monoester of glycerine and caprylic acid. That makes it a natural source, 100% biodegradable ingredient for cosmetic and food industry applications. Additionally, this substance is absolutely free of allergenic potential, excellent skin compatible and a real multi-functional additive. Beside its main action as preserving agent Cosphaderm® GMCY has also emollient, emulsifying, moisturizing, wetting and re-fatting properties.

We are able to offer you the highest quality with a minimum content of 88 % monoester which cause the antimicrobial efficiency. For alternative preservation, we recommend to combine it with other multifunctionals. The final pH value of the formulation should be between 3.5 and 7.0.

Cosphaderm® GMCY can be applied in the oil or water phase of an emulsion. Long term heating at temperatures > 80 °C (30 minutes) should be avoided. In case of water phase application, a pH between 5.5 and 7 is recommended.

Cosphaderm® GMCY is a surface active substance. Under certain circumstances adding of Cosphaderm® GMCY to an emulsion may influence the emulsifier system. If this happens, a simple adjustment of the emulsifier system to the higher polarity caused prevent this problem. Another possibility to avoid destabilisation is to add Cosphaderm® GMCY in melted state to the finished crystallized formulation (after min. 12 h).

1.5 Application

Recommended concentration:	0.5 %
Conditions:	water dispersible (turbid solution) and soluble in oils, alcohols and diols
Hints:	avoid long term heating (> 30 min.) at temperatures > 80°C Cosphaderm® GMCY is a co-emulsifier. If you can see an influence to the stability of your emulsion, adjust your emulsifier system to a higher polarity or add it in a final step to the formulation. Method 1: add to the water phase and disperse it. Method 2: add to the oil phase but avoid long term heating. Method 3: dissolve in alcohol or diols and / or melt it at 30-40°C and add it to the final formulation.

2.1 Specified data analyzed per batch

Purity:	min 88 % Glyceryl mono-octanoate max 12 % Glycerine and glycerine di- and triesters of octanoic acid
Water:	max 1 % (Karl Fisher titration)
Colour:	white (visual)
Saponification value:	245 – 265 mg KOH/g

Acid value:	max 0.5 mg KOH/g
Iodine value:	max 1 g KOH/g l /100 g
Peroxide value:	max 1 meq O ₂ /kg
Ash:	max 0.1 %

3.1 Physical and chemical properties

Molecular formula:	C ₁₁ H ₂₂ O ₄
Molecular weight:	218.29 g/mol
Appearance:	white to off-white waxy solid
Odour:	mild, characteristic, pleasing
Melting point:	approx. 35°C
Boiling point:	No data available
Flash point	> 180°C
Solubility:	water dispersible, soluble in oil, alcohols and diols

3.2 Packing and Storage conditions

Packing sizes:	25 kg bag or 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 product to be gently warmed and agitated prior to use. Excessive heat may cause accelerated degradation.
Shelf life:	At least 36 months if unopened and stored under proper conditions

4.1 Regulatory compliance

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)

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	
	Lead (Pb)	≤ 2	

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 volatile organic compound (>3%).

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 which 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:

4.13 GMO

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

4.14 Certifications

COSMOS

ECOCERT

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.