

TECHNICAL DATASHEET

COSPHADERM® PROPANEDIOL NATURAL

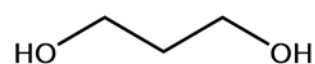
1.1 GENERAL INFORMATION

Trade name:	Cosphaderm® Propanediol natural
Item No.:	01-012-xxxx
Supplier:	Cosphatec GmbH Hopfenmarkt 33 20457 Hamburg Germany
Chemical name:	1,3-Propanediol
Other names:	1,3-Dihydroxypropane, 1,3-Propylenediol, Propane-1,3-diol, Trimethylene Glycol
INCI name:	Propanediol
CAS No.:	504-63-2
EINECS/ EC No.:	207-997-3
IECIC:	Propanediol

1.2 PRODUCT COMPOSITION

INCI name	CAS No.	%
Propanediol	504-63-2	min 99.5

1.3 CHEMICAL STRUCTURE



1.4 PRODUCT SHORT DESCRIPTION

Cosphaderm® Propanediol natural is a pure and colourless diol derived from the fermentation process of palm oil. It is therefore an ideal solution for creating formulations without petrochemical ingredients. Its polar character mediated by the two hydroxy substituents causes the unlimited solubility in water. This characteristic is strongly related to its most common cosmetic use as moisturizing and conditioning agent for both skin care and hair care formulations. It can also be applied as an emollient or solvent. At the same time Cosphaderm® Propanediol natural can help to prevent your water containing formulation from uncontrolled growth of bacteria and yeast. However, the antimicrobial efficiency of Propanediol is lower in comparison to diols with a longer carbon chain like Cosphaderm® Pentiol natural or Cosphaderm® Octiol (caprylyl glycol).

We recommend to use Cosphaderm® Propanediol natural as a booster for alternative preservation and to combine it with other Cosphaderm® Multifunctionals.

1.5 APPLICATION

Recommended concentration:	as a booster (2 – 10 %)
Conditions:	water soluble
Hints:	add recommended concentration to the water phase of your formulation

2.1 SPECIFIED DATA ANALYSED PER BATCH

Appearance:	transparent clear liquid (visual)
Purity:	min 99.5 [A]% (GC-FID)
Water:	max 0.5 % (Karl Fischer titration)
Colour:	max 10 (APHA spectrophotometer Hunterlab)
Density:	1.040 – 1.060 (Pycnometric)
Refractive Index:	1.425 – 1.445 g/cm ³ (Refractometric)

3.1 PHYSICAL AND CHEMICAL PROPERTIES

Molecular formula:	C ₃ H ₈ O ₂
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Molecular weight:	76.10 g/mol
Appearance:	colourless viscous liquid
Odour:	odourless, very slightly alcoholic
Melting point:	-27°C
Boiling point:	210-211°C
Flash point:	131°C
Solubility:	completely water miscible

3.2 PACKING AND STORAGE CONDITIONS

Packing sizes:	25 kg cans and 200 kg drums
Storage conditions:	Store in the air-tight original sealed containers protected from direct sunlight, moisture and heat at ambient temperature (15-25°C). Brief deviation from the storage temperature e.g. during transport does not impair product quality or shelf life.
Shelf life:	Unopened under proper conditions 24 months

4.1 REGULATORY COMPLIANCE

Propanediol (CAS: 504-63-2) is included/listed in the following international inventories:

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

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, colourants 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
Arsenic (As)	≤ 0.5
Lead (Pb)	≤ 0.25
Mercury (Hg)	≤ 0.1
Cadmium (Cd)	≤ 0.25

4.5 ALLERGENS

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

4.6 VOC

Product does not contain any additional volatile organic compounds.

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
Propanediol	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Name of the plant: Oil palm	Microorganism used: <i>Klebsiella</i>
		Plant part used: Fruits	
		Origin: Malaysia	

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 regarding use and handling are given to the best of our knowledge, but they are for information purposes only. Cosphatec GmbH bears no responsibility for deviated use or handling of the products. Customers or manufacturers are not released from their responsibility to perform own testing particularly with regard to the qualification of our products for intended processes and purposes. 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.