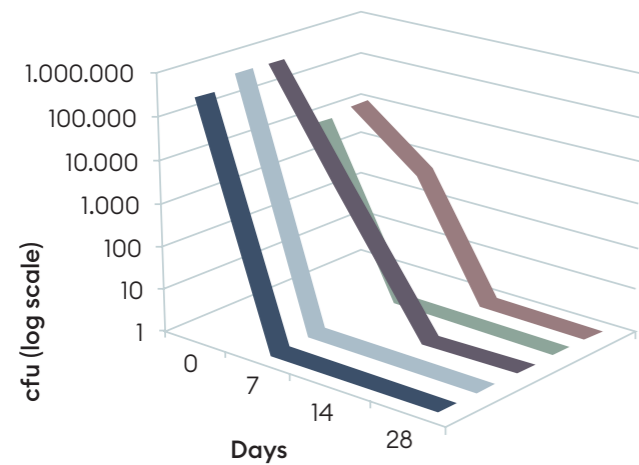


FRAME FORMULATION WITH NATURAL DIOLS



Vitamin C Glowdrops

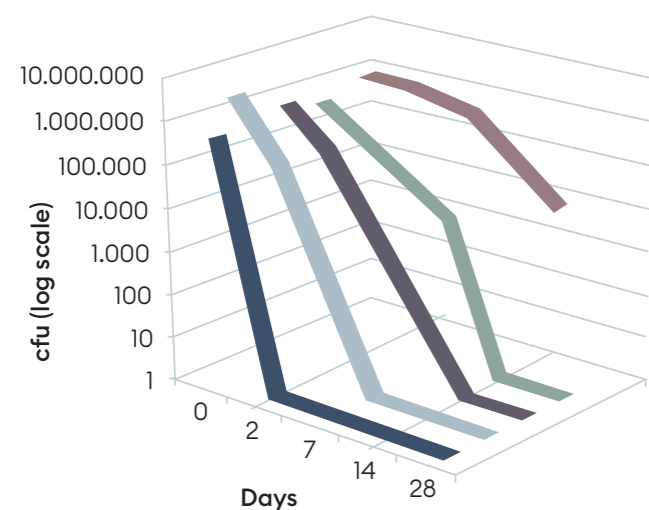
1.0% Cosphaderm® Heptiol natural
pH 6.5

Scan for our **Vitamin C Glowdrops** Formulation:



■ *E. coli* ■ *P. aeruginosa* ■ *S. aureus* ■ *C. albicans* ■ *A. brasiliensis*

FRAME FORMULATION WITH MAINLY SYNTHETIC DIOLS:



Rich Nightcream

1.0% Cosphaderm® Hexiol
0.4% Cosphaderm® Octiol
3.0% Cosphaderm® Propanediol natural
pH 5.5

Scan for our **Rich Nightcream** Formulation:



■ *E. coli* ■ *P. aeruginosa* ■ *S. aureus* ■ *C. albicans* ■ *A. brasiliensis*

RECOMMENDED CONCENTRATION

Cosphaderm® Propanediol natural	1.0 – 5.0 %
Cosphaderm® Pentiol GL / Pentiol natural	1.0 – 3.0 %
Cosphaderm® Hexiol / Hexiol natural	1.0 – 2.0 %
Cosphaderm® Heptiol natural	0.8 – 1.0 %
Cosphaderm® Octiol / Octiol natural	0.3 – 0.5 %

FOR DETAILED INFORMATION CONTACT:
INFO@COSPHATEC.COM

FIND MORE PRODUCTS HERE:
COSPHATEC.COM/PRODUCTS

FD2020.01

COSPHADERM® DIOLS

Antimicrobial boosting agents

Help to reduce preservatives

pH independent

Natural and synthetic qualities

Humectant and skin conditioning

High purity



Cosphatec

COSPHADERM® DIOLS

Our Cosphaderm® Diols are true multifunctionals. In addition to their use as humectants, emollients, co-emulsifiers or solvents, all diols exhibit an antimicrobial activity.

They are suitable for almost all types of formulations and are therefore real all-rounder ingredients in the cosmetics industry. Customers can choose between natural and synthetic versions. Still, both options are biodegradable and stand out with high purity.

NATURAL DIOLS

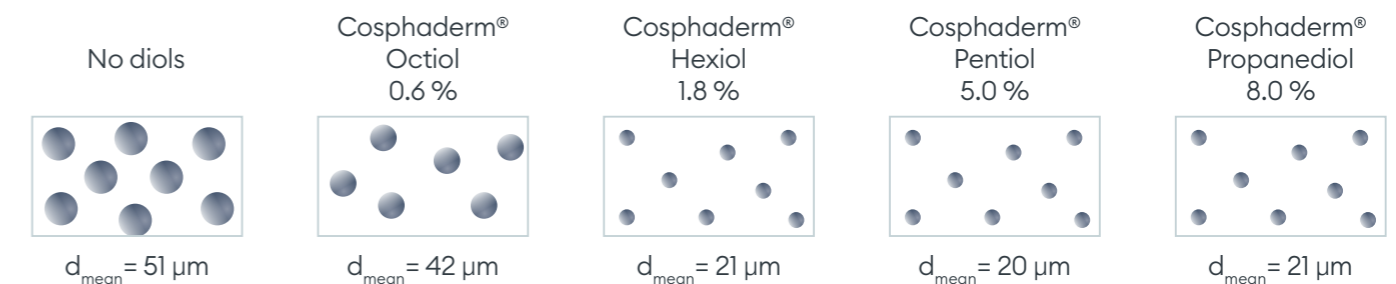
Product	INCI	COSMOS	NATRUE	Efficacy spectrum			pH-range
				Bacteria	Yeasts	Moulds	
Cosphaderm® Propanediol natural	Propanediol	✓	✓	●	●	●	pH ind.
Cosphaderm® Pentiol natural	Pentylene Glycol	✓	✓	●	●	●	pH ind.
NEW Cosphaderm® Hexiol natural	1,2-Hexanediol	✓	✓	●	●	●	pH ind.
NEW Cosphaderm® Heptiol natural	1,2-Heptanediol	✓	✓	●	●	●	pH ind.
NEW Cosphaderm® Octiol natural	Caprylyl Glycol	✓	✓	●	●	●	pH ind.

SYNTHETIC DIOLS

Product	INCI	COSMOS	NATRUE	Efficacy spectrum			pH-range
				Bacteria	Yeasts	Moulds	
Cosphaderm® Pentiol GL	Pentylene Glycol	—	—	●	●	●	pH ind.
Cosphaderm® Hexiol	1,2-Hexanediol	—	—	●	●	●	pH ind.
Cosphaderm® Octiol	Caprylyl Glycol	—	—	●	●	●	pH ind.

PARTICLE SIZE REDUCTION

Static light scattering experiments have shown that Cosphaderm® Diols can also be used to stabilize o/w emulsions by droplet size reduction.



CHALLENGE TEST RESULTS

The synthetic diols can be optimally replaced by the natural diols. The challenge tests show that there is no appreciable difference in efficacy against bacteria, yeasts and moulds.

NEW IN OUR DIOLS SERIES:

Cosphaderm® Octiol natural is a pure and colourless diol, with an acceptable water solubility of 0.5%. It is referred to by the well-known and established INCI Caprylyl Glycol and possesses a strong antimicrobial activity even at low application concentrations.

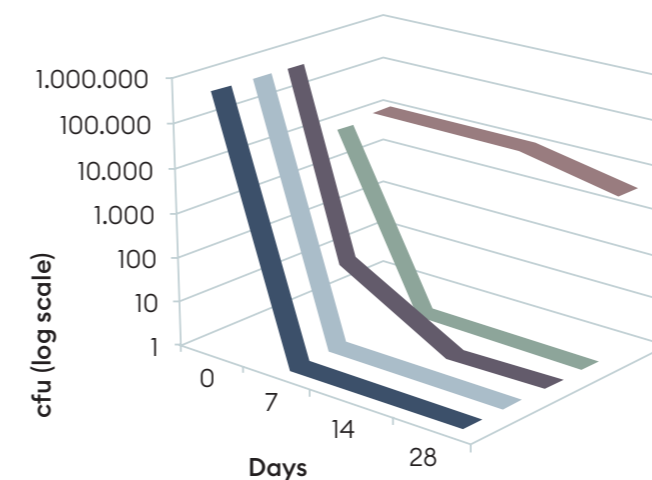
Cosphaderm® Heptiol natural is as well a pure and colourless diol with a notable transparent water solubility of up to 1%. It has an appealing 1,2-alkanediol INCI and does not need to be melted to be incorporated into formulations.

Cosphaderm® Hexiol natural is a pure, transparent, colourless and odourless diol of natural origin. Two vicinal OH-groups and a short carbon chain allow unlimited water-solubility.

All three products are NATRUE- and COSMOS-approved and can be used as moisturizers and humectants in skin and hair care formulations. In addition, both show remarkable synergistic effects in combination with other antimicrobial substances, making it possible to minimize the total amount of combined preserving agents.

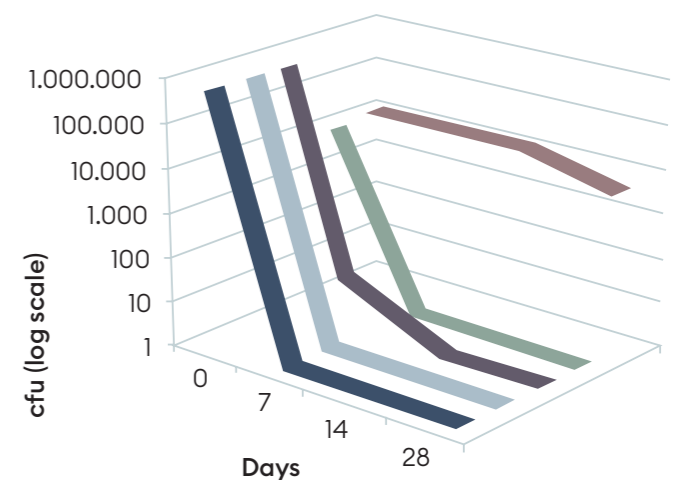
COSPHADERM® OCTIOL

Basic O/W
0.5 % Cosphaderm® Octiol
pH: 5.5



COSPHADERM® OCTIOL NATURAL

Basic O/W
0.5 % Cosphaderm® Octiol natural
pH: 5.5



■ *E. coli* ■ *P. aeruginosa* ■ *S. aureus* ■ *C. albicans* ■ *A. brasiliensis*