

Zemea®\* the Natural Choice...  
Purity and Renewable Performance



Zemea®  
renewably sourced™ propanediol

Zemea® Natural Emulsion with Phytocream® 2000

PHASE	TRADE NAME	SUPPLIER	INCI NAME	%
A	Deionised Water		Aqua	75.65
	<b>Zemea® Propanediol</b>	<b>DuPont Tate &amp; Lyle</b>	<b>Propanediol</b>	<b>3.00</b>
B	Phytocream® 2000	Sinerga	Potassium Palmitoyl Hydrolyzed Wheat Protein, Glyceryl Stearate, Cetearyl Alcohol	5.00
	Sunflower Seed Oil	Henry Lamotte	Helianthus Annuus Seed Oil	8.00
	Palmerol®	KLK Oleo	Cetyl Alcohol	2.00
	Cetiol OE	Cognis	Dicaprylyl Ether	4.00
	Dermofeel® Toco 70	Dr.Straetmans	Tocopherol, Helianthus Annuus Seed Oil	0.05
B1	Aromatic Tangerine Extract Ho826	Carrubba	Caprylic/Capric Triglyceride, Citrus Tangerina Extract, Limonene	1.00
C	Geogard 221	Lonza	Dehydroacetic Acid, Benzyl Alcohol, Water	0.80
D	Citric Acid (solution 20%)		Citric Acid	0.50
				100.00

## Manufacturing Procedure

1. Mix phase A and heat up to 75°C.
2. Heat phase B to 75°C and add phase B1 shortly before emulsifying.
3. Emulsify phase B to phase A under stirring. Homogenize for 1 - 2 minutes.
4. Cool down to 40°C under stirring at moderate speed and add phase C.
5. Continue stirring at moderate speed and cool down to room temperature.
6. Adjust pH with phase D.

## Product Features

Appearance: white emulsion

Viscosity: ~ 30.000 mPas (Brookfield DV-II: spindle 6, speed 10)

pH: 5,5 - 6,0

Storage Stability: 3 months at RT, 40°C, 4°C

(Prototype formula# H-N4-1109 provided by Biesterfeld Spezialchemie GmbH.

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