

WATER IN OIL INORGANIC SUNCREAM

WITH BENTONE GEL® TN V AND NANOX™ 200

RECF- KR8/105

Water in Oil Inorganic Suncream containing BENTONE GEL® TN V, rheological additive, and NANOX™ 200, Ultrafine Zinc Oxide.

Advantages

The presence of BENTONE GEL® TN V, rheological additive, in this system:

- Gives body, yet allows easy spreading, due to the thixotropic nature
- Promotes even distribution
- Produces a stable emulsion at increased temperatures
- Reinforces emulsion stability, and improves storage stability
- Enhances SPF to an in-vitro SPF of 23.32 +/- 6.47

Ingredient	Supplier	% w/w
PHASE A		
BENTONE GEL® TN V (C₁₂₋₁₅ Alky Benzoate and Stearalkonium Hectorite and Propylene Carbonate)	ELEMENTIS Specialties	8.0
Tegosoft OS (Ethylhexyl Stearate)	Evonik Degussa	13.5
Isohexadecane	Bayer	8.0
Tegosoft M (Isopropyl Myristate)	Evonik Degussa	5.0
Abil EM 90 (Cetyl PEG/PPG-10-1 Dimethicone)	Evonik Degussa	1.8
Isolan GO 33 (Polyglyceryl 3-Oleate)	Evonik Degussa	1.75
PHASE B		
NANOX™ 200 (Zinc Oxide)	ELEMENTIS Specialties	13.5
T805 (Titanium Dioxide)	Evonik Degussa	2.35
PHASE C		
De-ionised Water		41.4
Magnesium Sulphate Heptahydrate		0.75
Sodium Chloride		0.75
PHASE D		
1,3-Butylene Glycol	Siber Hegner	3.0
Phenoxetol (Phenoxyethanol)	Clariant	0.2

Method of Manufacture

1. Heat Phase A together to 75°C.
2. Transfer to a Silverson homogeniser, and with mixing gradually add Phase B. Mix until fully dispersed.
3. In a separate container warm Phase C to 75°C.
4. Using high shear mixing (e.g. Silverson homogeniser), slowly add Phase C to Phase A + B.
5. Continue to mix for several minutes.
6. Transfer to propeller stirrer and commence cooling.
7. Under 35°C add Phase D.
8. Mix until uniform.

N.B.

Please refer to the Product Data Sheets for additional advice on incorporation.

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