

OIL IN WATER INORGANIC SUNCREAM

WITH BENTONE GEL® TN V AND NANOX™ 200

RECF- KR7/017

Oil in Water 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 and even distribution, due to the thixotropic nature
- Produces a stable emulsion at increased temperatures
- Reinforces emulsion stability, and improves storage stability
- Enhances SPF to an in-vitro SPF of 13.16 +/- 1.36
- Enhances UVA/UVB Ratio and Critical Wavelength.
- Imparts a water proofing effect

Ingredient	Supplier	% w/w
PHASE A		
BENTONE GEL® TN V (C₁₂₋₁₅ Alkyl Benzoate and Stearalkonium Hectorite and Propylene Carbonate)	ELEMENTIS Specialties	3.0
Tegosoft TN (C ₁₂₋₁₅ Alkyl Benzoate)	Evonik Degussa	10.0
Tegosoft Liquid (Cetearyl Ethylhexanoate)	Evonik Degussa	5.0
Tego Alkanol (Cetyl Alcohol)	Evonik Degussa	3.0
Tego SMS (Sorbitan Stearate)	Evonik Degussa	2.2
Beeswax	A&E Connock	0.5
PHASE B		
NANOX™ 200 (Zinc Oxide)	ELEMENTIS Specialties	7.0
T805 (Titanium Dioxide)	Evonik Degussa	1.2
PHASE C		
De-ionised Water		56.6
Glycerin		8.0
Crillet 3 Super (Polysorbate 60)	Croda Chemicals	3.3
PHASE D		
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 A+B to the Phase C.
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.

The information herein is currently believed to be accurate. We do not guarantee its accuracy. Purchasers shall not rely on statements herein when purchasing any products. Purchasers should make their own investigations to determine if such products are suitable for a particular use. The products discussed are sold without warranty, express or implied, including a warranty of merchantability and fitness for use. Purchases will be subject to a separate agreement which will not incorporate this document.