

Water-in-Oil (W/O) Broad Spectrum Protection Daily Facial Moisturizer

Description: This light-feeling formulation uses Zemea® propanediol to maintain solubility and fluidity of the water-soluble sulisobenzone UVB/UVA absorber as the formulation water evaporates on the skin, to provide moisturization benefits, and to enhance freeze/thaw stability. The specially-coated zinc oxide is designed to offer highest levels of broad spectrum protection, transparency, and dispersibility. The W/O platform, stabilized by a PEG-free emulsifier, offers inherent water resistance. The emollient phase contains both volatile and solvent/emollient components, generating light application properties and the ability to incorporate other organic sunscreen actives.

| Phase | Ingredient | INCI Name | Supplier | Function | Wt.% |
|-------|---------------------------|--|------------------------------------|----------------------|---------|
| | Water | Water | - | - | 39.80% |
| A | Zemea® propanediol | Propanediol | DuPont Tate & Lyle Bio Products | Sunscreen Solvent | 10.00% |
| | Benzophenone-4 USP | Sulisobenzone (Benzophenone-4) | SandreamImpact | Active | 10.00% |
| В | SF 1202 | Cyclopentasiloxane | Momentive | Emollient | 15.00% |
| | Crodamol™ AB | C12-15 Benzoate | Croda | Emollient | 10.00% |
| | Zano [®] 10 Plus | Zinc Oxide (and) Triethoxycaprylylsilane | Ultra/Umicore | Active | 10.00% |
| | Silube® 316 | Lauryl, bis-hydroxymethyl butyl propyl ether, dimethicone (proposed) | Siltech | Emulsifier | 5.00% |
| С | Cab-O-Sil® TS-610 | Silica Dimethyl Silylate | Cabot | Thickener | 0.20% |
| | Total | | | | 100.00% |

Procedure:

- 1. Mix phase A until clear and uniform.
- 2. Mix phase B with propeller stirring until uniform.
- 3. Slowly add phase A to phase B with fast propeller stirring.
- 4. Add phase C with propeller stirring.
- 5. Homogenize until glossy.

Formula ACTS 1737 provided by: ACT Solutions Corp., Newark, Deleware, USA

For additional information or samples:

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