



Water-in-oil (W/O) broad-spectrum protection daily facial moisturizer

ACTS20139

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.%
A	Water	Water	—	—	39.80%
	Zemea® propanediol	Propanediol	CovationBio PDO	Humectant	10.00%
	AquaSul	Sulisobenzone (benzophenone-4)	SandreamImpact	Active	10.00%
B	SF 1202	Cyclopentasiloxane	Momentive	Emollient	15.00%
	Crodamol™ AB	C12-15 benzoate	Croda	Emollient	10.00%
	Zano® 10 Plus	Zinc oxide (and) triethoxycaprylylsilane	EverZinc	Active	10.00%
	Silube® 316	Lauryl, bis-hydroxymethyl butyl propyl ether, dimethicone (proposed)	Siltech	Emulsifier	5.00%
C	Cab-O-Sil® TS-610	Silica dimethyl silylate	Cabot	Thickener	0.20%
Total					100.00%

Formula provided by: ACT Solutions Corp., Newark, Delaware, USA

Procedure

- Mix phase A until clear and uniform.
- Mix phase B with propeller stirring until ZnO is completely dispersed.
- Slowly add phase A to phase B with fast propeller stirring.
- Add phase C with propeller stirring.
- Homogenize.