

Guide Formulation
Sunscreen formulation with AEROSIL® R 974 (w/o Pickering emulsion)
AEROSIL® R 974 a versatile stabilizer for emulsion

PHASE	INGREDIENTS	INCI NAME	% W/W	FUNCTION
1	TEGOSOFT® DEC	Diethylhexyl carbonate	18.9	Emollient
	TEGOSOFT® OER	Oleyl erucate	12.0	Emollient
		Caprylic/capric triglyceride	10.0	Emollient
		Hydrogenated castor oil	0.5	Viscosity increasing agent
		Tocopheryl acetate	0.5	Antioxidant
		Ethylhexyl methoxycinnamate	10.0	UV-absorber
	AEROSIL® R 974	Silica dimethyl silylate	3.5	Stabilizer
		Titanium dioxide/silica/dimethicone	5.5	UV- absorber
2	SIPERNAT® 11 PC	Hydrated silica	2.0	Sensory modifier
		Aqua	31.0	Water
		Glycerin	5.0	Humectant
		Sodium chloride	0.5	Electrolyte
3		Preservative	q.s.	Preservative
	Total		100.0	

PROCESSING

- Combine all ingredients of phase 2 in a beaker and homogenize
- Combine all ingredients of phase 1 into a beaker add AEROSIL® R 974, titanium dioxide and SIPERNAT® 11 PC.
- After the powder ingredients are wet by the oil mixture homogenize again
- Add water phase 2 dropwise into phase 1 while moderate stirring
- Add phase 3 and homogenize with moderate speed

Note: All formulations have been subjected to stability tests and have been shown to perform well. However, formulators should always perform their own stability tests when adapting formulations and / or using raw materials from other sources.

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