

Guide Formulation
**Sunscreen lotion with inorganic uv absorber and AEROSIL® R 816
 (o/w Pickering emulsion)**
AEROSIL® R 816, a versatile stabilizer for emulsions with less sticky skin feel

PHASE	INGREDIENTS	INCI NAME	% W/W	FUNCTION
1	TEGOSOFT® AC	Isoamyl cocoate	4.0	Emollient
	TEGOSOFT® DEC	Diethylhexyl carbonate	6.0	Emollient
	TEGOSOFT® CT	Caprylic/capric triglyceride	8.0	Emollient
		Jojoba oil	4.0	Emollient
		Titanium dioxide	6.0	UV-absorber
		Tocopheryl acetate	1.0	Antioxidant
	Water		a.d. 100	Water
2	AEROSIL® R 816	Silica cetyl silylate	2.0	Stabilizer
		Disodium EDTA	0.2	Chelating agent
		Glycerol	4.9	Humectant
		Phenylpropanol (and) propanediol (and) caprylyl glycol (and) tocopherol	1.0	Preservative
	SIPERNAT® 11 PC	Hydrated silica	2.0	Sensory modifier
	Xanthan gum	0.2	Thickener	
	Total		100.0	

*Note: Increase mixing speed and mixing time if necessary
 Xanthan gum needs to be pre-wetted in water phase.*

PROCESSING

- Slowly wet Titanium Dioxide into phase 1 and then homogenize under vacuum
- Slowly wet silica into phase 2 and then homogenize under vacuum
- Add phase 1 to phase 2 while stirring
- Homogenize

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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