

**Guide Formulation**
**Sunscreen lotion with organic uv absorber and AEROSIL® R 816  
 (o/w Pickering emulsion)**
**AEROSIL® R 816 a versatile stabilizer for emulsion with a non-sticky skin feel**

PHASE	INGREDIENTS	INCI NAME	% W/W	FUNCTION
1		Butyl Methoxydibenzoylmethane	3.0	UV-absorber
		Homosalate	10.0	UV-absorber
		Ethylhexyl Salicylate	5.0	UV-absorber
		Octocrylene	4.0	UV-absorber
		Benzophenone-3	5.0	UV-absorber
	<b>TEGOSOFT® CT</b>	Caprylic/capric triglyceride	10.0	Emollient
		Xanthan gum	0.1	Thickener
	Water	a.d. 100	Water	
2	<b>AEROSIL® R 816</b>	<b>Silica cetyl silylate</b>	<b>3.0</b>	<b>Stabilizer</b>
	<b>SIPERNAT® 11 PC</b>	<b>Hydrated silica</b>	<b>2.0</b>	<b>Sensory modifier</b>
		Glycerin	2.0	Humectant
		Phenylpropanol (and) Propanediol (and) Caprylyl Glycol (and) Tocopherol	1.0	Preservative
<b>Total</b>			<b>100.0</b>	

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

**PROCESSING**

- Weigh out each ingredient
- Dispermat mix phase 1 at 2000 rpm for 5 minutes
- Slowly wet and disperse silica into phase 2 at 1000 rpm and then increase speed to 2300 rpm mixing for 5 mins
- Homogenize under vacuum

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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