



## Moisturizer with SPF and SiBrid® DE-12

SiBrid® DiEthicone DE-12 fluid is a light emollient that is an exceptional vehicle for pigment wetting and dispersions. It is compatible with organic compounds, including sunscreens, and provides improved spreading and blending to formulations.

INCI Name	Ingredient	Supplier	Wt%
<b>PHASE A</b>			
<b>Polydiethylsiloxane</b>	<b>SiBrid® DE-12</b>	<b>Gelest</b>	<b>7.00</b>
Titanium Dioxide	Sunscreen Grade Titanium Dioxide		5.00
<b>PHASE B</b>			
Water	Deionized Water		q.s.
Magnesium Sulfate			0.20
Butylene Glycol			6.00
Preservatives			q.s.
<b>PHASE C</b>			
Ethylhexyl Methoxycinnamate	Escalol® 557	Ashland	7.50
Octyldodecyl Stearate	Ceraphyl® ODS	Ashland	5.10
PEG/PPG 10/1 Cetyl Dimethicone	Abil® EM 90	Evonik	5.00
<b>Myristyl Methicone</b>	<b>AM-114</b>	<b>Gelest</b>	<b>2.50</b>
Beeswax	White Beeswax		1.00
Hydrogenated Castor Oil	Castor Wax® MP80	Vertellus	0.50
		<b>TOTAL</b>	<b>100</b>

### PROCEDURE

- Disperse Phase A using a three roll mill.
- Combine Phase C and heat to 85°C. Cool to 70°C while mixing.
- Add Phase A to Phase C under slow homogenization.
- Combine first two ingredients in Phase B and stir until dissolved.
- Add remaining ingredients to Phase B and mix while heating Phase B to 70°C.
- At 70°C, slowly add Phase B to Phase AC and homogenize until emulsified.
- Mix for an additional 5 minutes while holding heat.
- Cool to 30°C with paddle blade.

Rev 2 (072313)

Formula GCA1-57-1