



# Formulation

No. 4016

## Natural Mineral Sunscreen

### DESCRIPTION

This formulation features **Poly Suga®Mulse D6** and **Colonial Monolaurin MB** for a broad spectrum mineral based SPF 30\* protection for ultimate sun coverage. Made up of 100% natural moisturizers, it's non-whitening, and dry to the touch.

### FORMULATION

Order	INCI Name	Trade Name	%
A	Water	Water	qs to 100.00
A	Xanthan Gum	Keltrol® CG-SFT <sup>1</sup>	1.00
A	Glycerin	Glycerin	2.00
A	Sorbitan Oleate Decylglucoside Crosspolymer	<b>Poly Suga®Mulse D6</b>	4.00
A	Glyceryl Laurate	<b>Colonial Monolaurin MB</b>	0.75
B	Zinc Oxide and Titanium dioxide and Caprylic/capric triglyceride and Polyhydroxystearic acid and Alumina and Stearic acid	Xperse® 301 <sup>2</sup>	30.00
B	Cetyl Alcohol	Lanette® 16 <sup>3</sup>	5.00
B	Coco-Caprylate	Cetiol® C5 <sup>3</sup>	5.00
C	Fragrance	Fragrance	0.20
C	Phenoxyethanol and Ethylhexylglycerin	Eueryl® PE 9010 <sup>4</sup>	0.50

### PROCEDURE

1. Combine xanthan gum and glycerin to create a smooth slurry. Add the slurry to water, mixing until completely hydrated.
2. Add remaining phase A ingredients.
3. In a separate vessel, combine phase B ingredients.
4. Heat both phases to 75 – 85°C.
5. Once at temperature, add phase B to phase A.
6. Homogenize and cool to 45°C.
7. Add remaining ingredients.

### TYPICAL PROPERTIES

Appearance	Opaque
pH	7.5 – 8.0
Viscosity	50,000 cP

### SUPPLIERS

<sup>1</sup>CP Kelco, <sup>2</sup>EverZinc, <sup>3</sup>BASF, <sup>4</sup>Schülke & Mayr

### ACTIVE INGREDIENTS

Zinc Oxide	9.0%
Titanium Dioxide	9.0%

\*Not a "turn-key" formula. SPF subject to testing.

## Colonial Chemical, Inc. *Natural Surfactants*

225 Colonial Drive • South Pittsburg, TN 37380 • Phone: 423-837-8800 • Fax: 423-837-3888

Technical information contained herein is believed to be accurate. However, it is furnished without charge or obligation and is given and accepted at the recipient's sole risk. No guarantee of the accuracy of the information is made and the products discussed are sold without conditions or warranties expressed or implied. No warranties beyond the guarantee that Colonial Chemical products are manufactured to specs are expressed or implied, since the use of material is beyond our control. Purchasers should make their own tests and determine suitability of the product for their particular purposes. Nothing contained herein shall be considered a recommendation for any use that may infringe upon patent rights. Safety information regarding this product is contained in its Safety Data Sheet.