

# FORMULATION example

## MDA-S-161-01 Natural-derived Mineral Sunscreen For Kids, SPF 25 Broad Spectrum, COSMOS, with Eusolex® T-AVO

Ingredients	INCI (US)	[%]
<b>A1</b>		
<b>Eusolex® T-AVO</b>	(1) TITANIUM DIOXIDE (AND) SILICA	<b>10.00</b>
<b>A2</b>		
Avicel PC 611	(2) MICROCRYSTALLINE CELLULOSE (AND) CELLULOSE GUM	1.00
Vanzan NF	(3) XANTHAN GUM	0.20
Glycerol anhydrous (vegetable) EMPROVE® bio	(1) GLYCERIN	4.00
Water, demineralized	WATER	ad 100
<b>B1</b>		
<b>RonaCare® Zinc Oxide</b>	(1) ZINC OXIDE	<b>5.50</b>
<b>B2</b>		
Montanov S	(4) COCO-GLUCOSIDE (AND) COCONUT ALCOHOL	3.00
Jojoba Oil	(5) SIMMONDSIA CHINENSIS (JOJOBA) SEED OIL	10.50
Montanov 202	(4) ARACHIDYL ALCOHOL (AND) BEHENYL ALCOHOL (AND) ARACHIDYL GLUCOSIDE	1.00
LexFeel Natural	(6) HEPTYL UNDECYLENATE	6.00
<b>C</b>		
Preservatives	PRESERVATIVES	q.s.

### Procedure:

Disperse Avicel PC 611 and Xanthan Gum in phase A2 and stir until homogeneous. Disperse B1 in phase B2 and A1 in phase A2. Heat up both phases to 80°C. Add phase B2 to A2. Homogenize using an Ultra-Turrax (1.5 min., 9500 rpm). Add phase C below 40°C. Cool down to room temperature while stirring.

### Notes:

Appearance : white cream (o/w)

pH (23°C): 8.0

Viscosity: 22,000 mPAs (Brookfield DV II-, Helipath spindle B, 10 rpm) at 23°C

Stability: 3 months at RT, 5°C, FTC (-5°C to +40°C), 40°C and 50°C

Eusolex® T-AVO is the UV filter active, RonaCare® Zinc Oxide is a colorant and supports moisture retention in skin

The INCI declaration of all mentioned raw materials are listed under COSMOS

### Suppliers:

(1) Merck KGaA, Darmstadt, Germany / EMD Performance Materials

(3) R. T. Vanderbilt Company Inc

(5) Gustav Heess GmbH

(2) FMC Biopolymer

(4) Seppic

(6) INOLEX Chemical Company

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