



# MICRO POWDERS, INC.

Specialty Micronized Wax Additives

SUNSCREEN LOTION WITH GELSLIP 519			
INGREDIENT	INCI NAME	% W/W	SUPPLIER
<b>Phase A</b>			
Deionised Water	Water	34.70	N/A
Trisodium EDTA	Trisodium EDTA	0.20	N/A
Triethanolamine 99%	Triethanolamine	0.90	N/A
Butylene Glycol	Butylene Glycol	15.00	N/A
Veegum F	Magnesium Aluminum Silicate	0.70	Vanderbilt Minerals, LLC
Keltrol CG	Xanthan Gum	0.25	CP Kelco
<b>Phase B</b>			
AJM- Jetmilled Talc	Talc	13.70	Kobo Products Inc.
RonaFlair SynMica M	Synthetic Mica	5.00	Rona EMD Chemicals
<b>Phase C</b>			
Parsol MCX / Escalol 557	Octyl Methoxy Cinnamate	7.50	BASF
Protachem GMS-450	Glyceryl Stearate	2.00	Protameen Chemicals Inc.
Stearic Acid TP NF	Stearic Acid	1.70	Protameen Chemicals Inc.
Protachem OP	Octyl Palmitate	6.60	Protameen Chemicals Inc.
<b>Phase D</b>			
<b>GelSlip 519</b>	Polypropylene, Isohexadecane, Polyamide-8 & Polyhydroxystearic Acid	10.00	<b>Micro Powders, Inc.</b>
Cucumber Mint Fragrance	Fragrance	0.15	Bell Flavors & Fragrance
F D & C Blue #1 (2% sol)	F D & C Blue # 1	0.10	Sensient Colors LLC
F D & C Red #40 (1% sol)	F D & C Red # 40	0.80	Sensient Colors LLC
Barguard CP	Capryl Glycol, Phenoxyethanol & Hexylene Glycol	0.70	Hampford Research Inc.
<b>Total</b>		<b>100%</b>	

## Procedure

1. Weigh Phase A ingredients: Water, EDTA and TEA into a separate beaker. Start mixing using propeller blade at slow to medium speed until it is uniform and clear. Now in a separate beaker add Butylene Glycol, Veegum and Xanthan Gum. Mix well make slurry and pour in to Water phase. Start heating to 165°F under high speed mixing. Once temperature reach to 165°F, mix for 30 minutes until gum hydrates completely. Check by making drawdown on a white paper.
2. Slowly add Phase B under high speed mixing. As the batch will start to thicken, continue high speed mixing until uniform phase is achieved. Mix for 30 minutes.
3. In separate beaker weigh Phase C, heat to 170°F under propeller medium speed mixing until clear.
4. Pour Phase C in to Phase A+B at constant slow rate speed at 165°F to 170°F.
5. Continue for 30 minutes at same temperature and speed with occasional side sweeping (emulsification step).
6. Cool the batch to 155°F and add Phase D GelSlip 519. Continue slow mixing. Batch temperature will go down to 145°F. Add remaining Phase D and maintain 145°F for 15 minutes. Mix for additional 5 minutes or more until gel is uniformly dispersed. Cool down the batch to ambient temperature.
7. Drop the batch in an appropriate container.

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