



**LIQUID FOUNDATION WITHOUT NATURESOFT 800 (TALC & OIL FREE)**

INGREDIENT	INCI NAME	% W/W	SUPPLIER
<b>Phase A</b>			
Deionized Water	Water	35.34	N/A
Protacide NA3 EDTA	Tri Sodium EDTA	0.20	Protameen Chemicals Inc.
Triethanolamine 99%	Triethanolamine	0.90	Huntsman
Protasorb L-20	Polysorbate 20	0.30	Protameen Chemicals Inc.
Butylene Glycol	Butylene Glycol	15.00	Lotion Crafter
Veegum F	Magnesium Aluminum Silicate	0.70	Vanderbilt Minerals, LLC
Vanzan NF-C	Xanthan Gum	0.25	Vanderbilt Minerals, LLC
<b>Phase B</b>			
Covarine White WN 9787	Titanium Dioxide, Glycerin, water	9.11	Sensient Cos Technologies
Covarine Yellow WN 1798	Iron Oxide Yellow, Glycerin, water	1.60	Sensient Cos Technologies
Covarine Red WN 3798	Iron Oxide Yellow, Glycerin, water	0.40	Sensient Cos Technologies
Covarine Black WN 9798	Iron Oxide Yellow, Glycerin, water	0.05	Sensient Cos Technologies
Rona Flair SynMica M	Synthetic Mica	10.00	Rona EMD Chemicals
Sericite C-15	Mica	5.00	Miyoshi America
<b>Phase C</b>			
Protachem ISP	Isostearyl Palmitate	10.83	Protameen Chemicals Inc.
Protachem GMS-450	Glyceryl Stearate	2.28	Protameen Chemicals Inc.
Stearic Acid TP NF	Stearic Acid	1.94	Protameen Chemicals Inc.
Protachem OP	Octyl Palmitate	5.25	Protameen Chemicals Inc.
<b>Phase D</b>			
Camellia Sinensis Extract in Glycerin	Camellia Sinensis Extract , Glycerin	0.15	Bell Flavors & Fragrance
Barguard CP	Capryl Glycol/ Phenoxyethanol / Hexylene Glycol	0.70	Ashland Inc.
	<b>Total</b>	<b>100%</b>	

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### Procedure:

1. Weigh Phase A ingredients: Water, EDTA, TEA & Polysorbate-20 into a separate beaker. Start mixing using propeller blade at slow to medium speed until it is uniform and clear. Now in separate a beaker add Butylene Glycol, Vee gum and Xanthan gum. Mix well make slurry and pour in to Water phase. Start heating to 165<sup>0</sup>F under high speed mixing. Once temp reach to 165<sup>0</sup>F, mix for 30 minutes till gum hydrates completely. Check by making drawdown on a white paper.
2. Slowly add Phase B (pigment grinds & mica) under high speed mixing. As the batch will start to thicken, continue high speed mixing till uniform phase is achieved. Mix for 30 minutes. Check for undispersed pigment by making drawdown on a white paper.
3. In separate beaker weigh Phase C, heat to 170<sup>0</sup> F under propeller medium speed mixing till clear.
4. Pour Phase C (oil phase) into Phase A+B at constant slow rate speed at 165<sup>0</sup>F to 170<sup>0</sup>F. Continue high speed mixing for 30 minutes with occasional side sweeping (emulsification step).
5. Cool the batch to 145<sup>0</sup>F and add Phase D ingredients individually with 5 minutes mixing time in between each addition. Maintain 145<sup>0</sup>F for 15 minutes and mix for additional 15 minutes. Cool down the batch to ambient temperature.

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