



HAND CREAM WITH ECOSOFT 608

<u>Product Name</u>	<u>INCI Name</u>	<u>%W/W</u>	<u>Supplier</u>
Phase A			
Deionized Water	Water	72.00	N/A
Carbopol Ultrez 10	Carbomer	0.40	Noveon
Phase B			
Hystrene 9718 NF EXT PWDR	Stearic Acid	3.50	PMC Biogenix
Cetyl Alcohol	Cetyl Alcohol	1.00	Protameen Chemicals Inc.
Lipocol S	Stearyl Alcohol	1.50	Lipo Chemicals
Liponate NEB	C12-15 Alkyl Benzoate	7.00	Lipo Chemicals
Protasorb L-20 NF	Polysorbate 20	0.50	Protameen Chemicals Inc.
Phase C			
Triethanolamine 99%	Triethanolamine	0.60	N/A
Phase D			
Barguard CP	Caprylyl Glycol, Phenoxyethanol, Hexylene Glycol	1.00	Paradigm Research Sci.
1,3 Butylene Glycol	Butylene Glycol	4.00	N/A
Phase E			
Xiameter PMX-200	Dimethicone	3.50	Dow Corning
Silicone Fluid 50CS			
Gransil DM-5	Dimethicone (& Polysilicone-11	2.00	Grant Industries
Phase F			
EcoSoft™ 608	Polylactic Acid	3.00	Micro Powders, Inc.

Procedure

1. In a main kettle, add Deionized Water and sprinkle in Ultrez 10 using propeller mixing. Heat Phase A to 70-75 °C.
2. In separate vessel, combine Phase B materials and heat phase to 75-80 °C.
3. When both phases are at temperature, add Phase B to Phase A. Mix for an additional 15 min maintaining 72-75°C.
4. Switch to sweep agitation and add Phase C. Mix well.
5. Cool batch to 50-55°C. Add Phase D and mix well.
6. Pre-mix Phase E in a separate vessel.
7. Add Phase E and mix until homogeneous.
8. Add Phase F and mix until homogeneous.
9. Cool batch to room temperature.