



# MICRO POWDERS, INC.

Specialty Micronized Wax Additives

TREATMENT SERUM WITH MICROSPERSION 684S-XF			
INGREDIENT	INCI NAME	% W/W	SUPPLIER
<b>Phase A</b>			
Deionized Water	Water	73.85	N/A
Carbopol Ultrez 10	Carbomer	0.50	Lubrizol
<b>Phase B</b>			
Glycerine, USP	Glycerine	1.25	N/A
Butylene Glycol	Butylene Glycol	5.00	N/A
Caffeine Anhydrous Powder	Caffeine	0.20	N/A
<b>Phase C</b>			
Floraesters 15	Jobba Esters	1.50	Floratch
Cetiol CC	Dicaprylyl Carbonate	1.00	BASF
<b>Phase D</b>			
Bronidox 1160	Phenoxyethanol	0.40	DeWolf Chemicals
Barguard CP	Caprylyl Glycol, Phenoxyethanol, Hexylene Glycol	0.40	Hampford Research Inc.
<b>Phase E</b>			
<b>Ecosoft® 611</b>	Polylactic Acid & Copernicia Cerifera (Carnauba) Wax	0.75	<b>Micro Powders, Inc.</b>
<b>Phase F</b>			
Deionized Water	Water	2.00	N/A
Tris Amino Ultra PC	Tromethamine	0.40	Angus
<b>Phase G</b>			
<b>Microspersion® 684S-XF</b>	PTFE & Isohexadecane & Polyethylene	3.00	<b>Micro Powders, Inc.</b>
<b>Phase H</b>			
Silicone Fluid SF 1236	Dimethicone	4.25	Momentive Performance Materials
TMF-1.5	Methyl Trimethicone	1.00	Shin-Etsu Silicones
Gransil DM5	Dimethicone & Polysilicone-11	1.00	Grant
<b>Phase I</b>			
<b>*Hyaluronic Acid (1.0% solution)</b>		3.50	N/A
Deionized Water	Water	98.10	N/A
Bronidox 1160	Phenoxyethanol	0.90	DeWolf Chemicals
Cristalhyal	Sodium hyaluronate	1.00	Actives International
	<b>Total</b>	<b>100%</b>	

### Procedure

- In a main kettle, sprinkle the Carbopol Ultrez 10 on the surface of warm Deionized Water. (Heat the water to approximately 40°C) Wait until the polymer has completely wet out.
- Begin gentle mixing for 10 min.
- In a separate vessel, combine Phase B materials.
- Add Phase B to Phase A. Mix until homogenous. Begin to heat Phase A-B to 50°C.
- In a separate vessel, heat Phase C to 55°C.
- When at the appropriate temperature, add Phase C to Phase A-B.
- Pre-mix Phase D in a separate vessel.
- Begin to cool batch. Switch to homogenizer mixer.
- At 50°C, slowly add Phase D to Phase A-B-C. Mix until homogenous. Continue to cool batch.
- At 48°C, slowly add Phase E powder to Phase A-B-C-D. Mix until homogenous.
- Pre-mix Phase F in a separate vessel.
- At 48°C, slowly add Phase F to Phases A-E under homogenization. Mix until uniform.
- When uniform, at 45°C, slowly add Phase G to Phase A-F. Adjust the speed of the homogenizer as necessary. Mix until smooth and homogenous.
- Pre-mix Phase H in a separate vessel.
- At 40°C, slowly add Phase H to Phase A-G. Adjust the speed of the homogenizer as necessary. Mix until smooth and homogenous.
- Slowly add Phase I to Phase A-H under homogenization. Mix until uniform.
- Continue to cool the batch until 25°C.

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