



MICRO POWDERS, INC.

Specialty Micronized Wax Additives

MASCARA WITH MATTEBLACK 523			
INGREDIENT	INCI NAME	% W/W	SUPPLIER
Phase A			
Deionized Water	Water	46.30	N/A
Keltrol CG	Xanthan Gum	0.15	CP Kelco
Veegum HV	Magnesium Aluminum Silicate	0.40	Vanderbuilt Minerals Inc.
Phase B			
BarGuard™ CP	Caprylyl Glycol (&) Phenoxyethanol (&)Hexylene Glycol	0.50	Hampford Research Inc.
Dissolve NA-2	Disodium EDTA	0.05	Akzo Noble
Protachem GL-26	Glycereth-26	1.00	Protameen Chemicals Inc.
AMP Ultra PC 2000	2-Amino-2-Methyl-1-Propanol	0.10	ANGUS Chemical Co.
Phase C			
Lipo SFS-5	Isododecane (&) Hydrogenated Polydecene (&) Bis-Behenyl/Isostearyl/PhytosterylDimmer Dilinoleyl Dimer Dilinoleate	5.00	Lipo Chemicals
Panalane L-14E	Hydrogenated Polybutene	2.00	Lipo Chemicals
Beeswax (White)	Beeswax	3.00	Koster Keunen, LLC
Lipovol J	Simmondsia Chinensis (Jojoba) Seed Oil	0.50	Lipo Chemicals
Hystrene 9718 NF EXTPWDR	Stearic Acid	2.00	PMC Biogenix
Arlacel 165	Glyceryl Stearate (&) PEG -100 Stearate	2.00	Croda
Lipocol S	Stearyl Alcohol	1.50	Lipo Chemicals
Permethyl 284C	C15-19 Alkane (&) C12-14 Isoparaffin (&) Polyisobutene	4.00	Presperse
Microcare 350	Copernicia Cerifera (Carnauba) Wax	1.50	Micro Powders, Inc.
Micropoly® 220L	Polyethylene	3.50	Micro Powders, Inc.
Phase D			
DC 5225C	Cyclopentasiloxane (&)PEG/PPG-18/18 Dimethicone	1.00	Dow Corning
Unipure Triple Black LC990	CI 77499, Black Iron Oxide	8.00	Sensient Colors LLC
MatteBlack 523	Polypropylene (&) Black 2	2.00	Micro Powders, Inc.
Dow Corning 749 Fluid	Cyclopentasiloxane (&)Trimethylsiloxisilicate	15.00	Dow Corning
	Total	100%	

Procedure

1. In a main kettle, combine the Phase A ingredients one at a time. Mix with low shear homogenization and slight heating for 30 minutes until all are completely dissolved.
2. When Phase A is completely dissolved, add the Phase B ingredients one at a time and homogenize until completely dissolved.
3. When Phase B is completely dissolved, heat to 80°C under homogenization.
4. Pre-mix the ingredients of Phase D in a separate container until uniform.
5. In a separate vessel, weigh the components of Phase C and begin heating to 80°C. Mix until all the waxes are completely melted and dissolved.
6. When both phases are 80°C and uniform, slowly add Phases A&B to Phase C and homogenize for 15 min.
7. Begin to slow cool the batch. When the temperature reaches 45°C, slowly add pre- mixed Phase D under homogenization. Mix until uniform.
8. Switch to side wiper or paddle agitation, and continue to cool batch to room temperature. When batch is at room temperature, store in appropriate containers.