



Zemea™* the Natural Choice... Purity and Renewable Performance

Zemea™
renewably sourced™ propanediol

Opaque Body Wash Formulation

PHASE	INGREDIENT	Wt, %
A	Deionized Water	47.60
A	Disodium EDTA	0.10
A	Zemea™ Propanediol	2.00
A	Polyquaternium-10	0.25
B	Ammonium Lauryl Sulfate	25.00
B	Sodium Laureth Sulfate	15.00
B	Cocamidopropyl Betaine	5.00
B	Cocamide MEA	2.00
C	Glycol Stearate	1.50
D	Fragrance	0.15
E	DMDM Hydantoin	0.20
F	Citric Acid	0.00
G	Sodium Chloride	1.20
Viscosity	7,150 cP	

Procedure

- Dissolve the Polyquaternium-10 in water, heat to 65-70° C, and add remainder of phase A
- Heat phase B to 65-70° C and add to phase A
- Add phase C and mix at 65-70° C until phase C melts and is dispersed
- Slowly cool to 40° C with mixing, and add phases D and E
- Adjust pH to 6.0-6.5 with phase F
- Adjust viscosity to 7,000-15,000 cps with phase G

For additional information or samples, please contact:

DuPont Tate & Lyle Bio Products Customer Service

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