

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



Sulfate-Free Shampoo Formulation

PHASE	INGREDIENT	WT, %
A	Water	33.82
A	Disodium EDTA	0.05
A	Sodium C14-16 Olefin Sulfonate	45.00
A	PEG-120 Methyl Glucose Dioleate	1.50
A	Zemea® Propanediol	4.75
B	Cocamide MEA	3.00
B	Cocamidopropyl Betaine	10.00
C	Preservative	0.06
C	Glycol Distearate	1.50
D	Citric Acid (20%)	0.32

Benefits of Zemea® Propanediol in Sulfate-Free Shampoo Formulation

- Less reduction in viscosity
- High stability
- Good foam height and drainage

Zemea® renewably sourced™ propanediol

Procedure

- Combine Phase A and slowly mix at 75° C.
- Slowly add Phase B.
- Mix at 75° C until uniform.
- Cool to 25° C.
- Add Phase C and continue mixing.
- Adjust pH to 6.0-6.5 with phase D.



For additional information or samples, please contact:

DuPont Tate & Lyle Bio Products Customer Service

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