



Formulation sheet

Clear deodorant stick

ACTS21489

Phase	Ingredient	INCI name	Supplier	Function	Wt.%
A	Distilled water	Aqua	—	Solvent	16.00%
	Zemea [®] propanediol	Propanediol	CovationBio PDO	Solvent	60.00%
	Sodium hydroxide (10% sol.)	Sodium hydroxide	_	pH adjuster	9.50%
В	Stearic acid	Stearic acid	Cremer	Emollient/ thickener	6.00%
С	POLYALDO® 10-1-CCKFG	Polyglyceryl-10 caprylate/caprate	Lonza	Surfactant	8.00%
D	Fragrance	—	—	—	0.50%
	Total				100.00%

Formula provided by: ACT Solutions Corp., Newark, Delaware, USA

Procedure

- 1. Add phase A in a clean beaker and heat to 85-95°C.
- 2. Add phase B into phase A and continuously mix the mixture at high temperature (85-95°C). A clear solution will be observed.
- 3. Add the water that was evaporated from heating and add phase C into the clear mixture.
- 4. Reduce the heat to 80°C and add phase D with stirring.
- 5. Transfer to packaging at 80°C.

COVATIONBIO PDO

For additional information or samples, please contact Customer Service.

198 Blair Bend Drive, Loudon, TN 37774 | Tel: +1-866-404-7933 | CovationBioPDO.com

Zemea[®] is a registered trademark of Primient Covation LLC for its brand of bio-based propanediol marketed under the name CovationBio[®] PDO. Copyright © 2023 Primient Covation LLC. All rights reserved. COV23_2301-0256_3-8473 (3/23)

This technical product information is presented in good faith and is believed to be accurate and reliable as of the date of publication. Primient Covation LLC makes no guarantee or warrant of any kind, expressed or implied, regarding the product or information contained herein. Purchaser assumes all risk and liability in acting on the information provided herein. It is the sole responsibility of the Purchaser to determine whether Zemea® propanediol is appropriate and suitable for the Purchaser's specific use and, as required, to obtain approval by appropriate regulatory authorities for such use. Statements concerning the use of Zemea® propanediol are not to be construed as recommendations, suggestions, or inducements to use it in the infringement of any patent or in violation of any applicable laws or regulations. Primient Covation LLC disclaims any liability for infringement of any patent by reason of customer's use of any products or information contained herein in combination with other materials or in any process.