



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

**Zemea®**  
renewably sourced™ propanediol

## Clear Sunscreen Spray Gel

PHASE	INGREDIENT	Wt, %
A	Deionized water	12.5
A	Carbopol 934	0.5
A	Germaben II	0.05
B	Zemea® Propanediol	5.0
B	Ethanol	20.0
B	PEG monolaurate	1.0
B	Polysorbate 60	2.0
C	2-Phenyl-5 benzimidazolesulfonic acid	2.0
C	Triethanolamine	2.0
C	Deionized water	25.0
D	Germaben II	0.8
D	Deionized water	Q.S. 100
	Viscosity 114 cps	

### Benefits of Zemea® Propanediol in Clear Sunscreen Spray Gel

- Natural-derived glycol with no skin irritation or sensitization
- Excellent feel
- Good stability

### Procedure

- Prepare gel by stirring components of Phase A for 4 hours at 50°C and 20 hours at room temperature.
- Add the components of Phase B to the mixture of Phase A and mix it until a uniform gel is formed.
- In a separate container take 2-Phenyl-5-benzimidazolesulfonic acid, add water and triethanolamine.
- Add Phase C to the mixture of Phase A and B and mix the gel thoroughly.
- Add water and preservative, continue agitation until a clear gel is formed.
- pH should be about 7

### For additional information or samples, please contact:

DuPont Tate & Lyle Bio Products Customer Service

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