

PROTOTYPE FORMULA

Mosquito Repellant Cream No. 457

| | | Wt.% |
|---|--|------|
| | VEEGUM® Ultra Magnesium Aluminum Silicate | 0.4 |
| Α | Carbomer (Carbopol® 940¹) | 0.4 |
| | Water | 79.2 |
| В | N,N-Diethyl-m-Toluamide | 15.0 |
| | Glyceryl Stearate (and) PEG-100 Stearate (Arlacel® 165²) | 5.0 |
| С | Sodium Hydroxide Solution to pH 5.5 | q.s. |
| | - Courain Ligaroniae Constituti is p. 1 0.10 | 4.0. |
| D | Preservative | q.s. |

Procedure: Begin heating the water to 50-55°C. Slowly add the **VEEGUM®** *Ultra* and carbomer sequentially or as a dry blend to the water agitated at maximum available shear. Mix until fully hydrated. Maintain Part A at 50-55°C. Heat Part B to 50-55°C. Add Part A to Part B with good agitation. Cool with mixing; add the sodium hydroxide and preservative when the emulsion is <35°C.

RAW MATERIAL SUPPLIERS

¹Lubrizol Advanced Materials, Inc., Cleveland, OH ²Croda, Inc., Edison, NJ

TRADEMARKS

VEEGUM is a registered trademark of Vanderbilt Minerals, LLC. Arlacel is a registered trademark of Uniqema Americas LLC. Carbopol is a registered trademark of Lubrizol Advanced Materials, Inc.

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