



# Silicone-Free Antiperspirant Spray

*Boost user confidence with extra-dry products that deliver the sensory feel of cyclopentasiloxane*

Solstice Enhance (HFO-1233zd(E)), a multifunctional solvent and carrier fluid, offers exciting possibilities for formulators. A nonflammable<sup>1</sup> alternative to hydrocarbons and high global warming potential (GWP) hydrofluorocarbons, it is non-ozone-depleting, VOC-exempt (U.S. EPA)<sup>2</sup>, with an **Earth-friendly** ultra-low GWP of one.

| PHASE       | TRADE NAME              | INCI   | WT%        |
|-------------|-------------------------|--|------------|
| Concentrate | Mineral Oil             | Mineral Oil  | 17.8       |
|             | Finsolv® TN             | C12-C15 Alkyl Benzoate   | 21.2       |
|             | Fragrance               | Fragrance  | 7.4        |
|             | BENTONE GEL® GTCC V     | Caprylic/Capric Triglyceride;<br>Stearalkonium Hectorite;<br>Propylene Carbonate | 9.4        |
|             | REACH 103               | Aluminum Chlorohydrate   | 44.2       |
|             |                         | <b>TOTAL</b>   | <b>100</b> |
| Aerosolized | Concentrate             |  | 13.58      |
|             | <b>Solstice Enhance</b> | Chlorotrifluoropropene   | 2.42       |
|             | Propellant A-46         | Propane; Isobutane   | 84         |
|             |                         | <b>TOTAL</b>   | <b>100</b> |

<sup>1</sup> ASTM E-681, EU A11

<sup>2</sup> Negligible contribution to smog formation

## FORMULATION PROCEDURE:

**Pre-step:** Chill Solstice Enhance (below 19°C) before combining with the formulation. Store in refrigerator.

### Concentrate:

1. Weigh Mineral Oil, Finsolv TN, Fragrance and BENTONE GEL GTCC V in a beaker. Mix until uniform using a rotor stator mixer.
2. The mixture should build in viscosity. Slowly add REACH 103. Mixture will continue to thicken. Mix for additional 5 minutes with rotor stator mixer.

### Aerosolized:

1. Fill liquid concentrate into aluminum/ plastic cans in the order of addition.
2. Add Solstice Enhance.
3. Crimp valve on can.
4. Charge with Propellant.
5. Shake the can vigorously until uniform.

**For more information:**  
call 800-631-8138  
(U.S. and Canada)  
or your local sales office.

[www.hwill.co/personalcare](http://www.hwill.co/personalcare)

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