



Enhanced Emollient Hand Sanitizer

Products highlighted: Florasolvs® PEG-150 Hydrogenated Jojoba, Floraesters® IPJ, Floraesters K-100 Jojoba, and Florasomes® Jojoba

Alcohol-based hand sanitizers are proven effective in the reduction of microbial contaminants. In addition to providing effective decontamination, this formula contains Floratech ingredients that deliver jojoba emolliency and showcase Florasomes Jojoba, our soft particles, in various size and color combinations.

| Phase | Trade/Common Name | INCI Name | Manufacturer | %wt./wt. | |
|---|--|--|--|-----------------------------|-------------|
| A. | Deionized Water | Water | ----- | q.s. | |
| | Florasolvs PEG-150 Hydrogenated Jojoba | Jojoba Oil PEG-150 Esters | Floratech | 0.10 | |
| | Carbopol® ETD 2020 Polymer Gel ¹ Glycerin, USP | Acrylates/C10-30 Alkyl Acrylate Crosspolymer Glycerin | Lubrizol Corporation* The Dow Chemical Co. | 20.00 5.00 | |
| B. | SDA-40-2 (200 proof) Floraesters IPJ | Alcohol Denat. Isopropyl Jojobate (and) Jojoba Alcohol Jojoba Esters (and) Tocopherol | Remet Corporation Floratech | 61.00 1.50 | |
| | Fragrance ² Alpha-Bisabolol Natural Floraesters K-100 Jojoba | Fragrance Bisabolol Hydrolyzed Jojoba Esters (and) Jojoba Esters (and) Water (Aqua) | ----- BASF Corporation Floratech | q.s. 0.10 0.10 | |
| | C. | Simulgel 600 | Acrylamide/Sodium Acryloyldimethyltaurate Copolymer (and) Isohexadecane (and) Polysorbate 80 | Seppic, Inc. | 2.50 |
| | D. | Florasomes Jojoba MDS Tequila Sunrise with 10% Vitamin E | Jojoba Esters (and) Tocopherol Acetate (and) Iron Oxides, Red 30 (and) Talc | Floratech | 0.50 |
| Florasomes Jojoba SMS Lapis with 10% Vitamin E | | Jojoba Esters (and) Tocopherol Acetate (and) Ultramarines | Floratech | 0.50 | |
| | | | TOTAL | 100.00 | |

Mixing Procedure

1. In a suitable vessel, add deionized water of Phase A. Add the Florasolvs PEG-150 Hydrogenated Jojoba and mix with propeller agitation until clear. Add the Carbopol ETD 2020 Polymer Gel to deionized water and mix until uniform. Add Glycerin, USP to main mixing vessel and stir until uniform (review footnote).
2. Mix all components of Phase B in the Ethanol SDA-40-2. Allow time for the Floraesters K-100 Jojoba to completely dissolve in the Ethanol SDA-40. Add the pre-mixed Phase B to Phase A with moderate propeller agitation.
3. While batch (Phase AB) is mixing, slowly add Phase C Simulgel 600. Mix until Simulgel 600 is completely dispersed. Mix batch with homomixer to ensure complete mixing of all components.
4. Slowly add ingredients of Phase D with sweep agitation to finish the batch.

¹ Carbopol ETD 2020 Polymer Gel Instructions:

- Add 1.0% Carbopol ETD 2020 Polymer to 98.65% deionized water with stirring.
Allow time for the polymer to completely hydrate in the deionized water.
- Add 0.05% Kathon CG as a preservative.
- Neutralize the polymer system with approximately 0.30% (to pH 7) TEA to create the final gel.
- Add this complete gel system to Phase A of the formula.

² Fragrance Green Clover and Aloe # H15455 supplied by Symrise

* Supplied by Essential Ingredients

Typical Properties: pH: 6.10 - 6.45
Viscosity: 1,000 -1,900 cP

Note: The information herein is based on our research and the research of others and is believed to be accurate. No guarantee of accuracy is made and the products are sold without warranty, expressed or implied and upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes. Likewise, statements concerning the possible use of these products are not intended as recommendations to use these products in infringement of any patent or in the treatment, prevention, or cure of any medical condition. (Cleared for Public Disclosure).