

# Fresh Breeze SPF Stick

Formula # 9/23-451/358/402-5

## Features

- Structured water-in-oil sunscreen emulsion
- Mineral sunscreen only, reef safe, non-nano
- Light and slick, spreads easily, non-whitening

Skin Care

Emulsion

Traditional Ingredients

Sunscreen

## Formula

### Ozokerite 175

Ozokerites are blends of branched and linear hydrocarbons and provide different levels of structuring. Ozokerite 175 has excellent structuring capabilities in almost all liquid mediums. Usage level 1-15%.

### Kester Wax K-24

Naturally derived wax ester of plant origin. Low melt point semi-solid, melts on body contact, provides cooling sensation. Adds slip, reduces greasy feel, dimethicone alternative. Usage level up to 50%.

### Kostol PGP

Non-ionic o/w emulsifier or w/o co-emulsifier. Provides a light feel, without affecting viscosity. Designed for multiple formula types, wide pH tolerance. Usage level 2-6%.

| Trade Name                         | INCI Name   | %           |
|------------------------------------|---|-------------|
| <i>Phase A</i>                     |   |             |
| <b>Ozokerite 175<sup>1</sup></b>   | <b>Ozokerite Wax</b>  | <b>15.0</b> |
| <b>Kester Wax K-24<sup>1</sup></b> | <b>Lauryl Laurate</b>   | <b>3.0</b>  |
| Purolan IHD <sup>2</sup>           | Isohexadecane   | 10.0        |
| Jeechem IPM <sup>3</sup>           | Isopropyl Myristate   | 3.0         |
| UV Cut ZnO-68-CG <sup>4</sup>      | Zinc Oxide, Caprylic/Capric Triglyceride, Polyhydroxystearic Acid | 36.8        |
| Abil EM 180 <sup>5</sup>           | Cetyl PEG/PPG-10/1 Dimethicone                                    | 1.5         |
| <b>Kostol PGP<sup>1</sup></b>      | <b>Polyglyceryl-3 Stearate, Beheneth-5</b>                        | <b>2.0</b>  |
| <i>Phase B</i>                     |   |             |
| Deionized Water                    | Aqua  | 23.6        |
| Optiphen <sup>6</sup>              | Phenoxyethanol, Caprylyl Glycol                                   | 0.5         |
| Jeechem BUGL <sup>3</sup>          | Butylene Glycol   | 3.0         |
| Sodium Chloride                    | Sodium Chloride   | 0.8         |
| Magnesium Sulfate                  | Magnesium Sulfate   | 0.8         |

## Procedure

- Combine Phase A ingredients and mix well, while heating to 85 -90 °C. Homogenize, if necessary, to ensure ZnO is well dispersed.
- Combine Phase B ingredients and heat to 85 - 90 °C.
- Once both Phases are at temperature, add Phase B to Phase A and increase mixing speed. Shear is optional.
- Cool with propeller mixing to 70 - 75 °C and fill containers, continue agitation throughout filling.
- Allow to cool undisturbed.

### Stability Information:

Three months at 45 °C, three months at room temperature, three freeze/thaw cycles.

### Supplier Information:

1. **Koster Keunen, Inc.;** 2. Lanxess; 3. Jeen; 4. Grant Inc.; 5. Evonik;
6. Brenntag Specialties.

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