

## SF1642

### SF1642

#### INCI NAME

C30-45 Alkyl Dimethicone

#### Description

SF1642 silicone alkyl copolymer is a high melting point, linear polysiloxane functionalized with C30-45 alkyl group. It is designed for use in sun care, skin care and color cosmetic applications. The unique structure gives rise to superior compatibility with both silicones and organics, thus SF1642 silicone alkyl copolymer is an effective coupler for silicone and organic phases. SF1642 silicone alkyl copolymer also functions as a thickening agent for both oil-in-water and water-in-oil emulsions. Additionally, it offers excellent lubricity and skin feel.

#### Key Features and Benefits

- Excellent lubricity
- Smooth-silky feel
- Thickening agent
- Compatibility with organic ingredients
- Compatibilizing agent for silicones and organic ingredients

#### Typical Properties

| Properties     | Value    |
|----------------|----------|
| Appearance     | Pastille |
| Color, Gardner | < 2      |

|                          |                |
|--------------------------|----------------|
| Melting Point, °C(°F)    | 60-70(140-158) |
| Density @ 25°C, (lb/gal) | 7.35           |
| Flash Point, °C(°F)      | > 100 (>212)   |

### Solubility data

#### Key

I = Insoluble at < 1%

IH = Insoluble Hot at < 1%

PSH = Partially Soluble Hot at 1-10% by weight

SH = Soluble Hot at 10% or higher

DH = Dispersible Hot at 90%

| Solvent Type                 | Material                               | SF1642 |
|------------------------------|----------------------------------------|--------|
| Highly Polar                 | Water                                  | IH     |
| Hydrocarbon Solvents         | Aliphatic                              | SH     |
|                              | Aromatic                               | SH     |
| Hydrocarbon & Vegetable Oils | Mineral Oil 65/75 SUS                  | SH     |
|                              | Mineral Oil 220/210 SUS                | SH     |
|                              | Petrolatum                             | SH     |
|                              | Cottonseed (Gossypium) Oil             | SH     |
|                              | Castor (Ricinus Communis) Oil          | IH     |
|                              | Sunflower (Helianthus Annuus) Seed Oil | PSH    |
|                              | Maleated Soybean Oil                   | PSH    |
|                              | Wheat (Triticum Vulgare) Germ Oil      | IH     |
|                              | Hydrogenated Polyisobutene             | SH     |
|                              | Isododecane                            | SH     |

|                    |                                                           |     |
|--------------------|-----------------------------------------------------------|-----|
| Alcohols & Glycols | Cetyl Alcohol                                             | SH  |
|                    | Ethanol                                                   | I   |
|                    | SD Alcohol 40                                             | I   |
|                    | Isopropanol                                               | I   |
|                    | 2-Ethyl-Hexanol                                           | SH  |
|                    | Lauryl Alcohol                                            | SH  |
|                    | Stearyl Alcohol                                           | SH  |
|                    | Propylene Glycol                                          | PSH |
|                    | Glycerin                                                  | IH  |
| Esters             | Isopropyl Palmitate                                       | SH  |
|                    | Isopropyl Myristate                                       | SH  |
|                    | Myristyl Propionate                                       | SH  |
|                    | PPG-2 Myristyl Ether Propionate                           | SH  |
|                    | Caprylic/Capric Triglyceride                              | SH  |
|                    | C12-15 Alkyl Benzoate                                     | SH  |
| Silicones          | Dimethicone (SF96-350)                                    | PSH |
|                    | Cyclopentasiloxane (SF1202)                               | SH  |
|                    | Cyclopentasiloxane (and) Trimethylsiloxysilicate (SS4230) | SH  |
|                    | Diisostearoyl Trimethylolpropane Siloxy Silicate (SF1318) | PSH |
|                    | Phenyl Trimethicone (SF1550)                              | SH  |
|                    | Dimethicone Copolyol (SF1288)                             | PSH |

|            |                                     |     |
|------------|-------------------------------------|-----|
| Waxes      | Paraffin                            | SH  |
|            | Ozokerite                           | SH  |
|            | Candelilla (Euphorbia Cerifera) Wax | SH  |
|            | Beeswax                             | SH  |
|            | Carnauba (Copernicia Cerifera) Wax  | SH  |
| Sunscreens | Benzophenone-3                      | IH  |
|            | Octyl Methoxycinnamate              | PSH |
|            | Octyl Salicylate                    | SH  |
|            | Octocrylene                         | IH  |
| Pigments   | Titanium Dioxide                    | DH  |
|            | Iron Oxides                         | DH  |
|            | D& C Red No. 21                     | DH  |
| Lanolin    | Lanolin                             | SH  |
| Others     | Tocopheryl Acetate                  | SH  |

### Potential Applications

- Skin Creams and Lotions
- Sun Care Products
- Color Cosmetics
- Stick Products

#### General Instructions for Use

SF1642 is added to the Oil or Silicone phase.

SF1642 must be hot processed.

Suggested Use Levels: 1-5%

### Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

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