

Dimethicone copolyols



Dimethicone copolyols, also known as silicone emulsifiers, are synthesized to contain both silicone and water-soluble group within the same molecule. These molecules can assist in the preparation of water-in-silicone, silicone-in-water or water-in-oil emulsions. The result is a series of ingredients with a huge capacity to create a large possibility of textures, sensory experiences and unique performances.

BRB provides a range of silicone polyether which can help formulators to create skin/sun care, hair care and color cosmetic products that deliver superior aesthetics, cost-effective and sensory benefits into stable emulsions.

| | BRB 523 | BRB 526 | BRB 6340/ 6341 | BRB 6373 | BRB 423 |
|-----------------------------------|-------------------------------|--|--|---|---|
| INCI Name | PEG/PPG-18/18 Dimethicone | PEG-12 Dimethicone | PEG-10 Dimethicone | Cyclopentasiloxane (and) PEG/PPG-18/18 Dimethicone | Cetyl PEG/PPG-10/1 Dimethicone |
| Emulsion | Co-emulsifier W/Si | Emulsifier Si/W | Emulsifier W/Si, W/Si+O Co-emulsifier W/Si+O | Emulsifier W/Si | Emulsifier W/Si, W/Si+O Co-emulsifier W/Si+O |
| Texture | Light emulsions | White emulsions, Gel-cream translucid emulsions | Fluid Emulsions | Versatility of textures: white & transparent emulsions, lotions, creamy emulsions, gel-creams | Versatility of textures: white & transparent emulsions, lotions, creamy emulsions, gel-creams. Richer emulsions |
| Viscosity (25°C) | 2000 cSt | 300 cSt | 600 cSt | 30 cSt | 1250 cSt |
| HLB | 8 | 13 | 4.5 | 2 | 5 |
| Carrier | No | No | No | Yes, cyclopentasiloxane (90%) | No |
| Compatibility | Water, hydroalcoholic systems | Water, hydroalcoholic systems | Isododecane, ethanol, esters, UV filters, silicones. | Isododecane, ethanol, esters, silicones. | Isododecane, ethanol, vegetal oils, UV filters, butters, esters, silicones. |
| Use level | 1 - 3 % | 4% | 2 - 8 % | 7 - 10 % | 1,5 - 3 % |
| Processing recommendations | * Combine with water phase | * Combine with water phase | * Combine with oil/silicone phase | * Combine with silicone phase | * Combine with oil/silicone phase |
| Cold process | No | Yes | Yes | Yes | Yes |
| Oil phase to emulsify | - | Up to 20% | Up to 30% | Up to 30% | Up to 30% |
| Incompatibility | | Waxes Mineral oils Vegetal oils | | Waxes Mineral oils Vegetal oils | |
| Skin Care | x | x | x | x | x |
| Sun Care | | | x | x | x |
| Hair Care | x | x | | x | x |
| Make-up | | | x | x | x |