

SILTECH® SUSTAIN CE-2000



PERFORMANCE INSPIRED INGENUITY

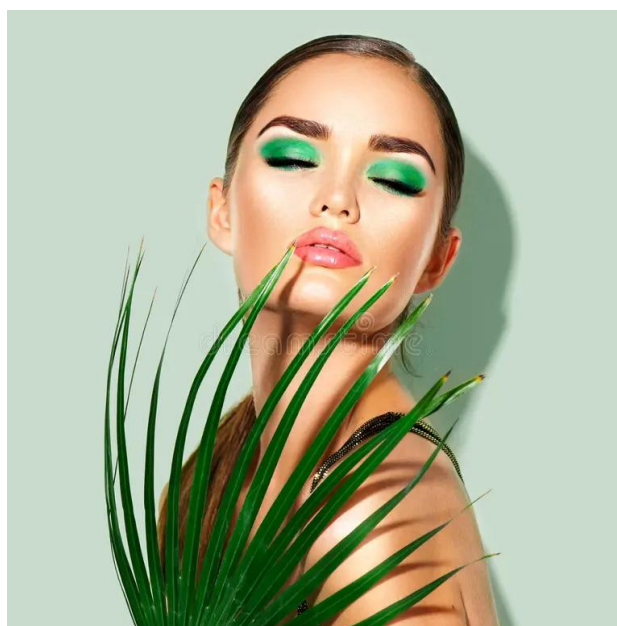
SUPERIOR DISPERSANT, 100% NATURALLY DERIVED!

Siltech® SUSTAIN CE-2000 – ISO 16128 Natural Index: 1.0

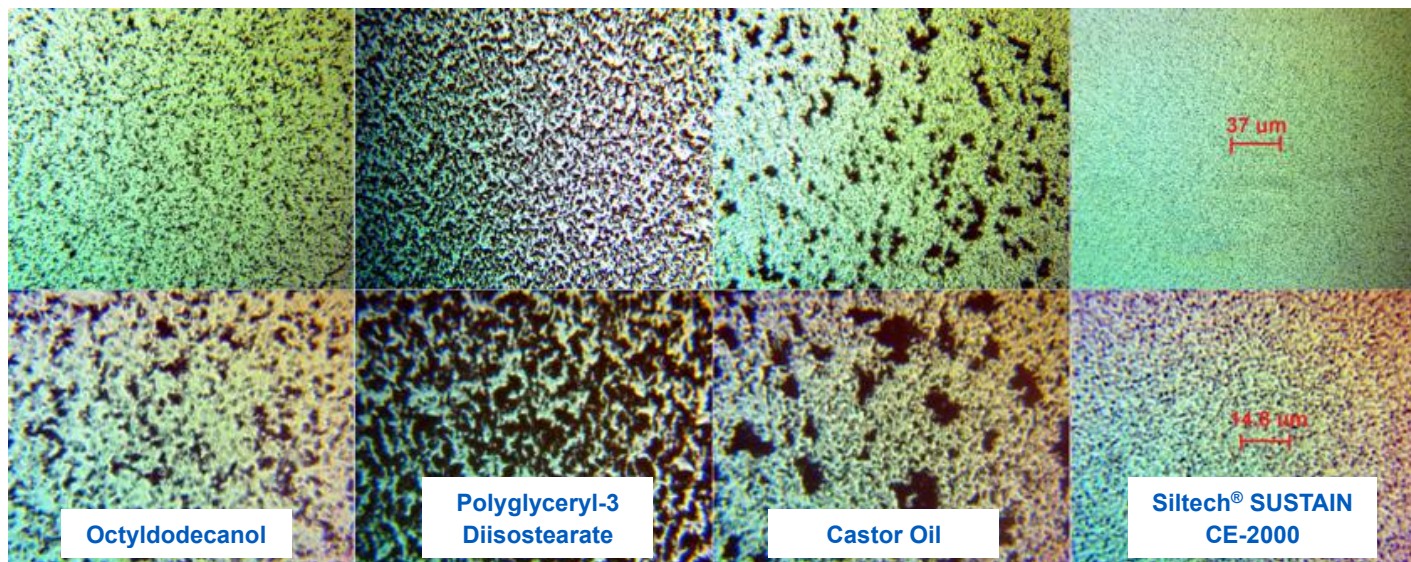
Color cosmetic chemists are familiar with using Octyldodecanol, Castor Oil and Polyglyceryl-3 Diisostearate for pigment dispersion.

Siltech's high molecular weight branched ester **Siltech® SUSTAIN CE-2000** provides superior pigment dispersion to those products. It offers excellent cushion in lipsticks and is a good emollient for skin care. Additionally, **Siltech® SUSTAIN CE-2000** meets ISO 16128 standards and is certified as **100% naturally derived**.

To show the pigment dispersing quality of **Siltech® SUSTAIN CE-2000**, Unipure Red LC 381 was used to make 8% dispersion in Octyldodecanol, Polyglyceryl-3 Diisostearate, Castor Oil, and **Siltech® SUSTAIN CE-2000** respectively, side by side comparison under microscopy was performed at 1000x and



Microscopic Study of Pigment Dispersion



RESULTS

In **Siltech® SUSTAIN CE-2000**, the average size of the pigments is the smallest and the size distribution is the narrowest, showing its **excellent performance in pigment dispersion**.

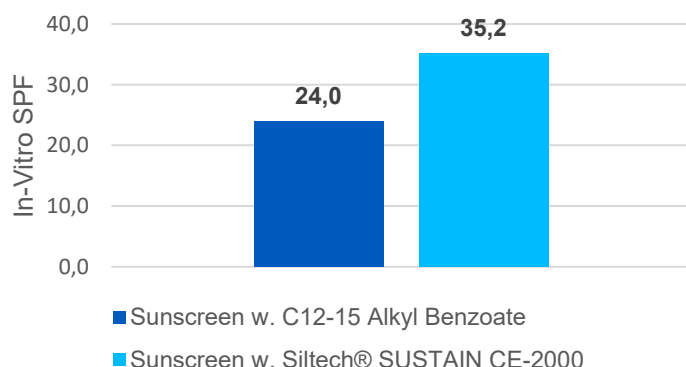
PRODUCT	CHEMISTRY	INCI	PHYSICAL FORM, VISCOSITY
Silmer® SUSTAIN CE-2000	Guerbet Ester	Trioctyldodecyl Citrate	Clear Liquid, 200 cps

SILTECH® SUSTAIN CE-2000



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SPF Boost Capacity



Siltech® SUSTAIN CE-2000 is a non comodeogenic citrate ester that displays excellent performance as an inorganic UV filter dispersant. It also excels at solubilizing organic UV filters. Lab studies were conducted comparing the efficacy of **Siltech® SUSTAIN CE-2000** to Alkyl Benzoate, a common sunscreen solvent.

RESULTS

The results indicate **superior dispersion** and a **dramatic in vitro SPF boosting effect!** A 24% increase in UVA values were also observed upon evaluation in the test sunscreen.

KEY BENEFITS

- ✓ ISO 16128 Natural Index (NI): 1.0
- ✓ Oil Soluble
- ✓ Excellent Pigment Dispersant
- ✓ Cushion & Emolliency
- ✓ Strong SPF-Boost
- ✓ Unique Wetting Properties

SPF-Boost Test Formulation

Phase	Material (Supplier)	INCI	Wt.(%)	Wt. (%)
A	Water	Aqua	49.5	49.5
	Zemea Propanediol (Dupont)	Propanediol	5.0	5.0
	Sodium Chloride	Sodium Chloride	1.0	1.0
	Silube® PCH2 (Siltech)	Polyglyceryl-4 Isostearate (and) Cetyl PEG/PPG-10/1 Dimethicone (and) Hexyl Laurate	6.0	6.0
	Silwax® A08-UP (Siltech)	Caprylyl Methicone	4.0	4.0
	C12-15 Alkyl Benzoate	C12-15 Alkyl Benzoate	8.0	0.0
	Siltech® SUSTAIN CE-2000 (Siltech)	Trioctyldodecyl Citrate	0.0	8.0
	Tinasorb S (BASF)	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	1.0	1.0
B	Paracera W80 (Paramelt)	Crystalline Wax	1.5	1.5
	Escalol 517 (Ashland)	Butyl Methoxydibenzoylmethane	1.0	1.0
	DIM 2F650T4 (KOBOL)	TiO ₂ , Dimethicone, Polyglyceryl-3 Polydimethylsiloxylethyl Dimethicone, Alumina, Hydrogen Dimethicone	12.0	12.0
	ZinClear XP 65 Coco (Antaria)	Zinc Oxide, Coco-caprylate/caprate, Polyglyceryl-3 Polyricinoleate, Isoteric Acid	10.0	10.0
C	Zeostat (Inolex)	Caprylhydroxamic Acid (and) Propanediol	1.0	1.0
Total				100.00