

BioEstolides – Compatibility

By Marlon Lutz, Jakob Bredsguard, October 16, 2020

At Biosynthetic® Technologies, we are a specialty ingredient company in the Beauty and Personal Care industry, that is dedicated to the health and safety of both our customers and the environment. BioEstolides are bio-based, biodegradable, sustainable and designed to still offer strong performance benefits so the personal care industry does not need to sacrifice performance in order to offer more sustainable ingredients in their higher end quality brands. BioEstolides have been designed to be thermally stable, oxidatively stable, and gentle on the skin.

BioEstolides tend to blend easily with common ingredients used in personal care formulations.

Products Discussed:

- BioEstolide 30 (BE30)
- BioEstolide 250 (BE250)
- BioEstolide 1300 (BE1300)

Compatibility with BioEstolides:

Material	Compatibility
Natural Oils	No Issues Blends easily with other natural oils as well as other emollients like Isopropyl Myristate, Cap-Cap Triglycerides, etc.
Mineral Oils	No Issues Blends easily with other natural oils as well as other emollients like Isopropyl Myristate, Cap-Cap Triglycerides, etc.
Silicones	See Notes BioEstolide 30 and Cyclopentasiloxane (CPS) <ul style="list-style-type: none">• BioEstolide 30 and Cyclopentasiloxane are fully soluble with each other at any wt%. BioEstolide 250 and Cyclopentasiloxane (CPS) <ul style="list-style-type: none">• Soluble at > 25 wt% BioEstolide in CPS.

	<ul style="list-style-type: none"> • Insoluble at 1-25 wt% BioEstolide 250 in CPS. <p>BioEstolide 30 and Dimethicone 500 (DMC 500)</p> <ul style="list-style-type: none"> • BioEstolide 30 is not soluble in DMC 500 at any wt%. <p>BioEstolide 250 and Dimethicone 500 (DMC 500)</p> <ul style="list-style-type: none"> • BioEstolide 250 is not soluble in DMC 500 at any wt%.
<p>Solvents</p>	<p>Alcohols</p> <ul style="list-style-type: none"> • Methanol may show partial solubility with BioEstolides (especially higher viscosity) due to significant difference of polarity. • All other alcohols will be completely miscible. • Example of alcohols used as solvents for cosmetics are ethanol, isopropanol, butanol, benzyl alcohol, etc. <p>Diol solvents</p> <ul style="list-style-type: none"> • Diol solvents are expected to be miscible with lower viscosity BioEstolides. • Examples of diols commonly used in cosmetics are 1,2-Hexanediol, 1,2-pentanediol, 1,3-butanediol, glycerin derivatives, etc. <p>Ester solvents</p> <ul style="list-style-type: none"> • Ester solvents will be miscible with all BioEstolides. • Examples of ester-based solvents are Benzyl benzoate, diethyl succinate, diethyl oxalate, alkyl benzoates, fatty acid esters, etc. <p>Ethers</p> <ul style="list-style-type: none"> • Ethers will be miscible with BioEstolides. • Example of ether solvents used in cosmetics is diglyme, 2-butoxyethanol, diethylene glycol <p>Non-polar solvent</p> <ul style="list-style-type: none"> • D-Limonene is miscible with BioEstolides. • Other non-polar solvents like heptane or cyclohexane are miscible with BioEstolides. <p>Water</p> <ul style="list-style-type: none"> • Immiscible with BioEstolides.

	<p>Other polar solvents:</p> <ul style="list-style-type: none"> • Miscible with dimethylsulfoxide (DMSO) <p>Carboxylic acid solvents (e.g. acetic or oleic acid)</p> <ul style="list-style-type: none"> • Miscible with BioEstolides.
--	---

BioEstolide Technology

At Biosynthetic® Technologies, we are a specialty ingredient company in the Beauty and Personal Care industry, that is dedicated to the health and safety of both our customers and the environment. We strive to delivering innovations for a safe and sustainable future by are socially responsible and meet evolving consumer needs. Our unique products; BioEstolides™, are stable bio-derived oils from a natural non-GMO source with unique performance features. These renewable and biodegradable oils deliver high performance benefits as an emollient with enhanced stability, exceptional moisturization characteristics and a light, satiny feel. BioEstolide™ are multi-functional and not only enhance the feel and performance of other cosmetic ingredients, but they come with some powerful benefits of their own.

BioEstolide Applications

Baby Care, Bath & Shower, Body Care, Color Cosmetics, Hair Shampoo, Hair Conditioner, Hair Setting Aid, Hair Relaxer, Hair Dye, Decorative Cosmetics, Skin Creams and Lotions, Depilatories, Ethnic Hair Care, Food & Pharma, Hair Cleansing, Hair Conditioning, Hair Styling, Hair Treatment, Household Cleaning, Lubrication, Make-up Remover, Pharmaceutical, Skin Care, Skin Cleansing, Tanners etc.

Biosynthetic® Technologies

Biosynthetic® Technologies is committed to sustainability and focused on the responsible use of natural resources. We incorporate sustainability into both our products and manufacturing practices. We are constantly looking for ways to minimize [the] negative impacts on the environment while conserving energy and natural resources. Our objective is to make sustainability a point of difference for our business, and we are confident that this strategy will generate even greater benefits for the environment in which we operate, the people that we work with and the communities we are part of. We understand that health and environmental awareness play just as large a role for consumers as quality and efficacy. As such, we use natural feedstocks in our products and our manufacturing facility is operating with a NEGATIVE carbon footprint!