

Penreco introduces new Versagel® SQ – Gelled Squalane

Versagel SQ is an exciting new product from Penreco/Calumet, and is a great additive or substitute in both oil-based formulas and emulsions.

Versagel SQ is a gelled squalane product. Squalane is naturally present in the skin lipid barrier and is an ingredient known for its exceptional moisturizing abilities and its ability to penetrate the skin to deliver benefits. Like jojoba, it closely mimics the body's natural moisturizers and is absorbed quickly and effectively, without leaving greasy residue on the skin.

Clinical studies conducted by the manufacturer on ungelled squalane found that it is non-comedogenic and improved cell turnover by 34% compared to an uncontrolled site. (It improved cell turnover by 17% versus a placebo formulation). Ungelled Squalane was found in clinical testing to decrease skin roughness by 28% through a mechanism of binding moisture and transporting it to the skin. Ungelled Squalane also decreased the appearance of wrinkles and fine lines by 51% compared to untreated skin.

Squalane is a non-GMO, plant-derived ingredient and Versagel SQ is a high quality replacement for shark and olive squalene. It is derived from plant sugar, is ECOCERT approved, and is readily biodegradable as well.

Some of the advantages it has which make it easy to work with are that it is colorless, odorless, and is stable at elevated temperatures up to 250° Fahrenheit for short periods of time. It's an oil-based component which is compatible with virtually all other oil-based ingredients in 100% oil formulations, and water-based ingredients in emulsions.

Squalane clinical studies review¹

- Non-comedogenic
- Improves cell turnover:
34% vs. untreated control site, 17% vs. placebo formulation
- Binds moisture and provides nourishment to skin:
Skin roughness decreased by 28%
- Improves skin elasticity:
Skin elasticity increased by 10%
- Restores the skin barrier function:
TEWL reduced by 18%
- Reduces the appearance of wrinkles and fine lines:
Appearance of wrinkles reduced by 51%

Versagel® SQ Formulation Benefits

- Non polar
- Colorless and odorless liquid
- Stable to oxidation, heat, cold and UV
- Easily incorporated into emulsions
- Compatible with most cosmetic ingredients
- Spreads easily and is rapidly absorbed into the epidermis
- Highly moisturizing
- Softens and soothes
- Creates very elegant textures
- Leaves the skin smooth without a greasy, sticky or heavy after-feel

Versagel SQ is a versatile ingredient which works well in skin care, sun care and baby care. In skin care, it helps to facilitate an even distribution of the active sunscreen ingredients. In baby care, it softens the skin and is easily absorbed. In makeup, it facilitates the even application of products such as lipsticks, foundations, and hot-poured products such as lip balms, glosses and gels. It also is a useful ingredient in hair care products, as it lends a soft after-feel to shampoos, conditioners and styling products.

Versagel® SQ Applications

- Skin Care / Sun Care / Baby Care: *elegant & nourishing textures, easily absorbed, persistent softening effect, even application of sunscreens, perfect ingredient for baby care*
- Make-up: *facilitates even application in lipsticks, foundations and hot-poured products*
- Hair Care: *soft after-feel, ideal for shampoos, conditioners and styling products*
- Cleansers

Versagel SQ has a viscosity similar to a soft nut butter such as avocado butter, and can be heated slightly to about 180 to 200 degrees to lower the viscosity of the gel and allow for efficient incorporation of other components. There is no maximum usage percentage in an oil-based product; it can be safely used at up to 100% of the product weight/volume.

¹Study percentages based on Neossance Squalane from Amyris

Penreco is a leading independent producer of high-quality, specialty hydrocarbon products in North America. Penreco manufactures a full line of White Mineral Oils (USP/NF), Petrolatums (USP/Technical), Waxes (FDA/Candle/Technical), and a product line of patented gelled hydrocarbons (Versagel® and Synergel®) which are used in various industrial and consumer applications ranging from cosmetics and pharmaceuticals to personal care products. Penreco specializes in Niche Product Blending to meet customer specific requirements/directives. For more information please visit www.penreco.com.