

A Detailed Overview of Durosoft PG10L-SG

Durosoft PG10L-SG is a hydrophilic, RSPO-SG certified emulsifier and emollient made from natural oils. It is ideal for water-based formulations. Its dual functionality and liquid form make it easy to process and offer brands a sustainable way to create eco-friendly skincare products.

Durosoft PG10L-SG is a naturally derived, non-ionic surfactant designed for a variety of personal care applications. It is particularly valued for its versatility in emulsifying oil and water-based formulations without the need for synthetic alternatives like PEG derivatives. Durosoft PG10L-SG is produced through esterification using renewable vegetable oils, ensuring that it fits the growing demand for sustainable and environmentally friendly products in the cosmetics and personal care industries.

This ingredient is well-suited for a wide range of formulations, including face masks, body washes and shampoos making it a key component in face,

body, and hair care items. It offers formulators the ability to create stable emulsions with enhanced performance, which can be processed at room temperature. Approved by COSMOS for use in organic formulations, Durosoft PG10L-SG is also certified by RSPO, ensuring it meets strict sustainability standards related to palm oil sourcing.

Moreover, Durosoft PG10L-SG offers an eco-friendly substitute without compromising on functionality. Its natural origin index stands at 1, emphasizing its alignment with ISO16128 standards for naturally derived ingredients. These features make it a top choice for brands focused on clean beauty and eco-conscious formulations.

- » INCI: Polyglyceryl-10 Laurate
- » Appearance: Amber syrup
- » HLB: 11-12
- » Average molecular weight: 708.72 gmol⁻¹
- » Usage Level: Emulsifier 3-6% / Emollient 1-5%
- » Inter-facial Tension: <2.5 mN/m
- » Non-ionic O/W emulsifier for water rich products
- » Emollient to improve skin feel and slip
- » Mild Surfactant for cleansing
- » Safe for use in oral care products (3% inclusion)
- » Dermatologically tested





The Benefits of Formulating With Durosoft PG10L-SG

Hydrophilic

Due to its hydrophilic nature, Durosoft PG10L-SG easily integrates into the water phase of formulations. This characteristic ensures that it blends seamlessly with water-based components, enhancing the overall stability and consistency of the product. By being part of the water phase, Durosoft PG10L-SG aids in creating formulations that are smooth, effective, and visually appealing.

Hydrophilic Surfactant Head

Durosoft PG10L-SG features a hydrophilic surfactant head, contributing to its moisturising and mild properties. This structure ensures that products formulated with Durosoft PG10L-SG are gentle on the skin, making them suitable for sensitive skin types. The moisturising properties provide long-lasting hydration, enhancing personal care products' overall effectiveness and appeal.

Made from Palm Kernel Oil

Durosoft PG10L-SG is derived from palm kernel oil, which has properties that can help reduce the appearance of wrinkles. This natural oil provides essential nutrients that support skin health and elasticity, making it an excellent ingredient for anti-aging formulations.

Short C12 Carbon Chain

The short C12 carbon chain in Durosoft PG10L-SG contributes to its excellent cleansing capabilities and ability to pick up oil. This makes it highly effective in formulations designed for deep cleansing and oil control, such as facial cleansers and shampoos. Durosoft PG10L-SG ensures that products deliver thorough and efficient cleansing without compromising mildness.

Diverse Fatty Acid Content

The diverse fatty acid content in Durosoft PG10L-SG contributes to forming stable micro-structures within formulations. This diversity helps create robust and resilient formulations that maintain their structure and

effectiveness under various conditions. Stable micro-structures are vital to ensuring the longevity and performance of the final product.

Wetting Agent

One of Durosoft PG10L-SG stand out benefits is its role as a wetting agent, significantly improving formulations' spreadability. This means that products glide more easily over the skin, providing a more pleasant application experience. Improved spreadability also ensures that active ingredients are evenly distributed, enhancing their effectiveness.

The combination of a hydrophilic polyglycerol backbone and lipophilic oil tail enhances the wetting of hydrophobic surfaces, ensuring that water-based products can more easily coat or penetrate materials that would typically repel water.

Decaglycerol

Durosoft PG10L-SG features a decaglycerol chain, which enhances its moisturising and mildness properties. This unique structure ensures that products formulated with Durosoft PG10L-SG are gentle on the skin, making them suitable for sensitive skin types. The moisturising properties provide long lasting hydration, contributing to personal care products' overall effectiveness and appeal.

RSPO-SG

Durosoft PG10L-SG is certified by the Roundtable on Sustainable Palm Oil (RSPO) with a Segregated (SG) supply chain model. This certification ensures that the palm oil used in Durosoft PG10L-SG is sustainably sourced, supporting ethical and environmentally responsible practices. By choosing Durosoft PG10L-SG, you align your brand with the values of sustainability and transparency, meeting consumer demand for ethically produced products.