

Coconut Oil (MCT) Research Paper

APPEARS INS



Coconut Oil has been used for years as an emollient that gently removes stubborn makeup on the face and eyes. Three Ships has two cleansing oils, the [Nourish](#) and [Clarify Cleansing Oils](#). Nourish is great for all skin types and Clarify is formulated for acne-prone skin types, as it contains tea tree oil. Medium-chain triglyceride (MCT) Coconut Oil is the key ingredient for these cleansing oils. MCT Coconut Oil is used because it prolongs the shelf life of the cleansing oil and is liquid at room temperature.

COCONUT OIL HAS BEEN USED FOR YEARS AS AN EMOLLIENT THAT GENTLY REMOVES STUBBORN MAKEUP

MCT Coconut Oil is a refined version of Coconut Oil where only the medium-chain triglycerides are left. Virgin Coconut Oil mainly comprises medium-chain triglycerides (MCT), which are resistant to peroxidation. This means that the Coconut Oil is stable when exposed to air and will not degrade rapidly over time.

This refined version of Coconut Oil is also liquid at room temperature, making it great for removing makeup and dispensing product. The composition of the MCT Coconut Oil is 60% caprylic acid and 40% capric acid.



Traditionally, Coconut Oil is extracted from the kernel or “meat” of mature coconuts harvested from the coconut palm. Fractionated Coconut Oil is made from regular Coconut Oil. It is created through a process that uses steam and pressure hydrolysis to break down the oil into free fatty acids and glycerol. In short, the oil is processed to remove the long-chain fatty acids. This leaves only the medium-chain fatty acids remaining.

However the exact method of extraction of the MCT that Three Ships sources is proprietary information.

MCT COCONUT OIL IS 60% CAPRYLIC ACID AND 40% CAPRIC ACID

As mentioned, MCT Coconut Oil is 60% caprylic acid and 40% capric acid. At room temperature, caprylic/capric acid is an oily liquid that has an excellent shelf life due to its great stability and resistance to oxidation. This makes caprylic/capric acid desirable to blend active ingredients and prevent degradation. The three main functions that caprylic/capric acid is used for are acting as a dispersing agent, a solvent, and an emollient. When applied topically to the skin, it is quickly absorbed without leaving the skin oily or greasy. Formulation products with caprylic acid help the product spread more easily and keep ingredients, such as vitamins, suspended evenly. Caprylic/capric acid also has antioxidant properties, boosting the antioxidants in skin products.

SCIENTIFIC STUDY

The Bacterial Flora of the Skin - Factors Influencing the Growth of Resident and Transient Organisms

This study investigates the hypothesis that the acidity of the surface of the skin is the predominant factor in preventing the growth of certain bacteria like the ones responsible for acne. Certain bacteria like genic staphylococci and streptococci may be inhibited by certain fatty acids that the skin's sebum produces. In this study, they tested different strains of bacteria with different lipids to study the effects that the lipids had on the growth or destruction of the bacteria. The results showed that strains of normal skin bacteria, tested by the filter paper disc method against a number of fatty acids, were most inhibited by caprylic acid.

Topical Delivery of Lycopene using Microemulsions: Enhanced Skin Penetration and Tissue Antioxidant Activity.

This study investigates how to effectively incorporate lycopene into topical formulations and can be seen to demonstrate the effects of capric/caprylic acid as a solvent. The overall results were that both microemulsions improved the penetration of lycopene into viable layers of the skin compared to the control solution, however, the mono/diglycerides capric/caprylic acid had a superior effect. By using a smaller molecule to facilitate the delivery of lycopene, the mono/diglyceride capric/caprylic acid was able to modulate the barrier function of the skin and delivery of the lycopene increased. This study overall demonstrated that the choice of oil solvent is an important parameter to optimize the skin penetration of lycopene and other lipophilic compounds.

MCT Coconut Oil, which is made up of 60% caprylic acid and 40% capric acid, is a key ingredient in Three Ships makeup removing products, the Nourish and Clarify Cleansing Oils. MCT Coconut Oil helps prolong the shelf life of products and works hard in formulations as a dispersing agent, solvent, and emollient.