

# Avocado Oil & Extract Research Paper

## APPEARS IN



Avocado Oil and Extract are full of fatty acids that benefit the body and skin. The Three Ships [Buttercream Lip Mask](#) was formulated to be super hydrating on the lips and last all day. The formulation incorporates the benefits and properties of Avocado Oil to soothe dry and chapped lips. The Avocado Oil used in the Buttercream is sourced from Mexico and extracted by the cold-pressed method.

This method increases the price of Avocado Oil since the yield is less than through heat extraction; however, it produces a much higher quality oil. Without the use of heat, plant compounds like vitamin A, D, and E are maintained and not denatured, therefore further nourishing the skin. Especially for the lips, deep hydration is necessary, and Avocado Oil is most abundant in oleic acid (fatty acid). Oleic acid is known to disrupt the skin barrier to act as a penetration enhancer.

## OLEIC ACID IS KNOWN TO DISRUPT THE SKIN BARRIER TO ACT AS A PENETRATION ENHANCER.

Avocado Oil is a clear, yellow liquid made from cold press extraction of the whole Avocado fruit. It is rich in nutrient waxes, proteins, minerals and vitamins A, D, and E. It is an excellent source of enrichment for dry, damaged, or chapped skin. It has generated interest in consumers for its emollient texture and ability to moisturize the skin and hair.



Three Ships' Avocado Oil is made through the cold-pressed method. Oil recovery is only obtained from the pulp of the Avocado fruit. First, the Avocado fruit is grinded into a pulp. Typically the pulp is heated to a temperature of 45 degrees celsius to get more oil, however with the cold press method, the temperature of the Avocado pulp does not increase. The pulp in the cold-pressed method goes through an expeller where the oils are extracted and then filtered to get rid of any unwanted solids leftover from the expeller. While this results in a lower yield of oil, it maintains the integrity of vitamins and other plant compounds compared to the heated method. To create Avocado Extract, avocado fruits from Peru are dried and crushed into cakes, before being undergoing hydroglycolic extraction and filtration. The exact process of extraction method for the Avocado Oil and Extract that Three Ships sources is proprietary information.

## **THE LIPIDS IN AVOCADO OILS CONTRIBUTE TO THE SKIN'S HYDRATION AND SMOOTHNESS THROUGH AN EMOLLIENT EFFECT**

Avocado Oil application acts as a protective barrier to the skin through an occlusive effect. This results in a decrease in trans-epidermal water loss. Previous research on Avocado Oil has shown that Avocado Oils, when applied topically, mostly remain at the surface of the skin, without deep penetration. The lipids in Avocado Oils contribute to the skin's hydration and smoothness through an emollient effect. Avocado Oil is high in oleic acid, which is a fatty acid that disrupts the skin barrier and acts as a permeability enhancer.

### **SCIENTIFIC STUDY**

#### **In Vivo Investigations on the Penetration of Various Oils and Their Influence on the Skin Barrier**

The aim of this study was the investigation of the penetration behaviour of four plant oils and of paraffin oil into the top layer of the skin using laser scanning microscopy. Also tested in this study was the occlusive effect of these plant oils to see their effectiveness in preventing trans-epidermal water loss. Trans-epidermal water loss is when water from your body diffuses from the skin into the atmosphere leaving the skin feeling dry and dehydrated. The best moisturizing agents to prevent or limit trans-epidermal water loss are occlusive agents.

These are ingredients that form a layer on top of the skin and prevent the water from diffusing from the body to the atmosphere by trapping it in. The plant oils that were compared were jojoba oil, soybean oil, avocado oil, and almond oil. While Avocado Oil did not have the greatest effectiveness in decreasing trans-epidermal water loss, it did have some effect. With that result, the researchers concluded that Avocado Oil does have occlusive properties and helped the skin to retain moisture.

Avocado Oil is a nourishing ingredient that works to help dry, chapped, and damaged skin. It has occlusive and emollient properties and studies on the occlusive and wound healing properties of the oil have been conducted to support these claims. The Avocado Oil used by Three Ships is also extracted through the cold-pressed method, resulting in high-quality oil that maintains the integrity of bioactive components such as vitamins. These properties make Avocado Oil and Extract a notable ingredient in products such as the Three Ships Buttercream Lip Mask and Brighter Days Red Algae + Avocado Biodegradable Eye Masks.