

KUKUI OIL

INCI Name: Aleurites Moluccana Seed Oil
CAS #: 8015-80-3 EINECS #: 273-313-5

Kukui Oil — Hawaii's Natural Skin Therapy

In 1959 the Kukui tree became the official state tree of Hawaii. Of all the Hawaiian trees, the Kukui has the lightest colored foliage. Silver-grayish powder on its leaves make it conspicuous in the forest, where its seeds are wild harvested.



For hundreds of years, native Hawaiians have used oil from the fruit of the kukui tree to treat a number of skin ailments. In 1988, Oils of Aloha first pressed this natural oil.

Oils of Aloha is dedicated to exploring traditional uses of our oils, as well as developing a scientific understanding of how they affect the skin. We work closely with scientists at the University of Hawaii, dermatologists, AMA Laboratories and other researchers. We also collaborate with the traditional healers in the Hawaiian community.

Kukui Oil has proven its effectiveness:

- Burns, both chemical and sun
- Dry, cracked skin
- Various skin irritations such as psoriasis and acne
- Calluses

Gentle enough to be used on a baby's skin, Kukui Oil is a natural botanical source of α -linolenic and linoleic acid, Omega 3 and Omega 6. This unique blend of fatty acids helps control skin barrier functions and prevent excess transdermal water loss.

Oils of Aloha's Kukui Oil is infused with Vitamins A, C, and E as antioxidants. Easily absorbed by the skin, Kukui Oil never leaves a greasy film and offers therapeutic moisturization, conditioning and healing that promotes the skin's health and wellness even under conditions such as acne and eczema. Its emollient quality brings out the best in the skin, leaving it supple and smooth to the touch.

Kukui Oil and Healthy Skin

Oils of Aloha's Kukui Oil with its unique blend of fatty acids addresses the skins specific requirements for optimal health. Rich in omega 3 fatty acids, Kukui Oil is easily absorbed into the skin, allowing for a number of potential treatments that promote overall skin health.



- Quick skin penetration, non-greasy
- Moisturizes skin which helps in the healing process
- Prepares skin for environmental insults

With its unique properties, Kukui Oil has been used to treat a number of dermal conditions effectively including psoriasis, eczema, dry skin and burns. Its emolliency and easy absorption make it ideal to incorporate in any number of skin product formulations.

Kukui Oil is safe for most formulas. It can be used on the face, hair, body and even in baby formulations. A Repeated Insult Patch Test (RIPT) was conducted on the oil. Of the more than fifty subjects that completed the test no one had any adverse reactions.

INSULT PATCH TEST

Objective: To determine by repetitive epidermal contact the potential of a test material to induce primary or cumulative irritation and/or allergic contact sensitization.

Participants:

Sixty one (61) qualified subjects, male and female, ranging in age from 17 to 79 years, were selected for this evaluation. Fifty two (52) subjects completed this study. The remaining subjects discontinued their participation for various reasons, none of which related to the application of the test material.

Test Material: Pure Kukui Oil

Methodology:

The upper back between the scapulae served as the treatment area. Approximately 0.2 ml of the test material was applied to an absorbent pad portion of an adhesive dressing. This was then applied to form an occlusive patch.

Induction Phase:

Patches were applied three (3) times per week for a total of nine (9) applications.

Challenge Phase:

Approximately two weeks after the final Induction patch application, a Challenge patch was applied to a virgin test site adjacent to the original Induction patch site. The patch was removed and the site scored at the clinic twenty-four (24) and seventy-two (72) hours post application.

Results:

Observations remained negative throughout the test interval for each participant.

Summary:

Under the conditions of this study, test material, Pure Kukui Oil with Vitamin E, did not indicate a potential for dermal irritation or allergic contact sensitization.

KUKUI OIL

What Makes It Work?

Dry skin is characterized by scaling, itching and cracking. These symptoms may be induced by the loss of natural lipids in the stratum corneum layer of the epidermis. Regardless of the type of damage, normal dry skin naturally heals. Oils of Aloha's studies have demonstrated that Kukui Oil can facilitate this healing.

Kukui Oil can effectively help control skin barrier function and prevent excess transdermal water loss. Kukui Oil easily absorbs for soft and healthy skin that never feels greasy. As with Macadamia Oil, Kukui Oil offers excellent compatibility with cosmetic ingredients, easy emulsification, and works well as a solubilizer for sunscreens, possibly reducing their greasiness.

Kukui Oil's Benefits

- Soothing: Capable of facilitating healing for burns, dry skin, and more
- Flexible: Excellent compatibility with many skin care ingredients
- Clean: Doesn't leave a greasy film and can be used as a solubilizer.

Potential Markets

Kukui Oil's flexible and effective nature makes it ideal for a number of different products. The different industries that can benefit most from Kukui Oil are:

- Skin Care: Lotion and cream formulations and products for excessively dry skin
- Hair Care: Hair and dry scalp treatment
- Pharmaceutical: Treatments for skin irritations and rashes
- Infant Care: Gentle skin products designed for infants

Kukui DEO

Kukui Oil naturally has an aroma; however, Oils of Aloha wants to ensure that as many people as possible can tap into the natural skin care capabilities of Kukui Oil. Kukui DEO maintains the high quality and efficacy of Kukui Oil, but utilizes a steam-washing process to remove some residual color and odor from the natural oil. Kukui DEO offers all of the benefits of Kukui Oil but is targeted towards users that don't want fragrances of any kind in their products.

TYPICAL FATTY ACID COMPOSITION	CHAIN LENGTH	DOUBLE BONDS	RANGE KUKUI OIL	PROFILES/PROPERTIES	
				CHEMICAL/PHYSICAL	
Palmitic	C16	0	6 to 8%	Iodine Value	153—175
Stearic	C18	0	2 to 3%	Saponification #	185—195
Oleic	C18	1	17 to 25%	Refractive Index	1.473—1.478
Linoleic	C18	2	39 to 43%	Specific Gravity	0.920—0.930
Linolenic	C18	3	24 to 29%	Acid Value	Less than 1
				Color	Light yellow/Amber
				Odor	Slightly characteristic

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