



## SOLaleur®

INCI Name: Aleurites Moluccana Seed Oil, Macadamia Ternifolia Seed Oil, Tocopheryl Acetate

### SOLaleur® Natural Reduction of Erythema

Recent clinical studies have demonstrated the effectiveness of Oils of Aloha's SOLaleur® in suppressing erythema caused by sunburns and radiation burns. SOLaleur's unique composition utilizes the inherent healing qualities of a number of natural ingredients including:

**Kukui Oil:**

A traditional Hawaiian treatment for burns and sun-related skin damage, this polyunsaturated oil is produced and refined locally on the North Shore of O'ahu

**Macadamia Oil:**

A deterrent to the skin's aging process, macadamia oil is 80% monounsaturated and the best vegetable source of palmitoleic acid (generally found in under-30 skin)

**Antioxidant vitamin package:**

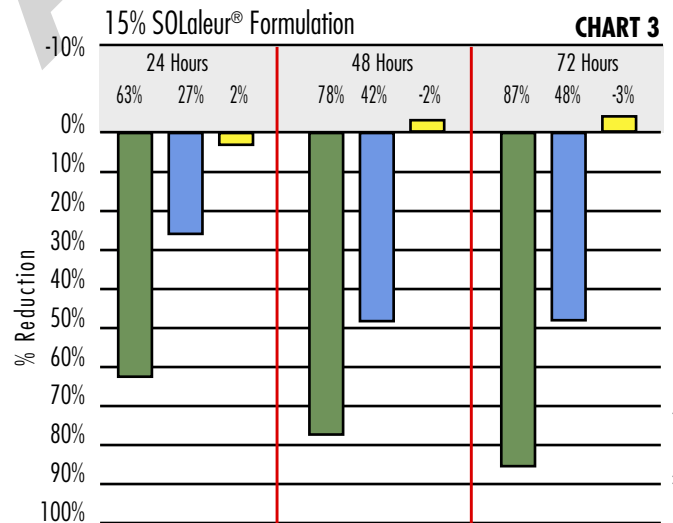
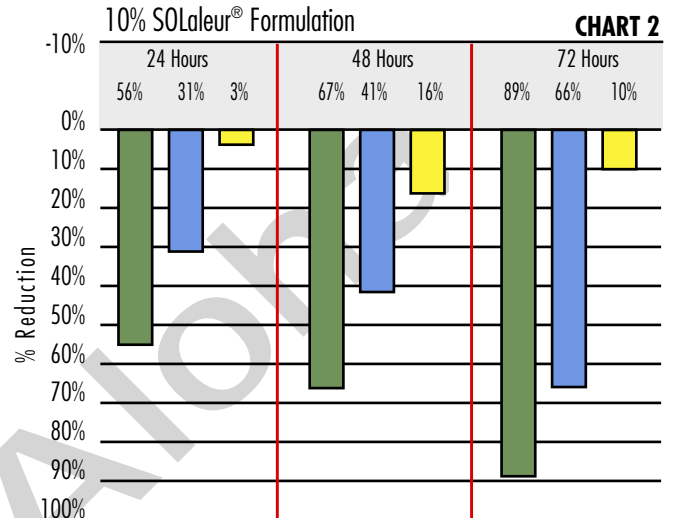
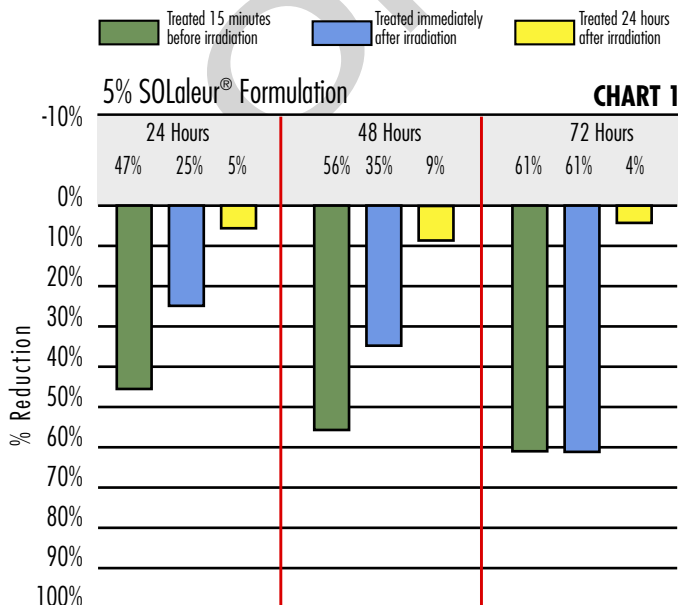
A proprietary mix that ensures the integrity and stability of SOLaleur®

Recent AMA Laboratories studies demonstrated the product's burn-relief effectiveness when applied:

- 15 minutes before or immediately after UV irradiation
- Between one and 24 hours after exposure

Because of the SOLaleur's natural origins and proven results, it has significant potential for aiding patients with cancer-related burns as well as integration into sun care products.

The following charts detail SOLaleur's effectiveness in different concentrations.



Tested by AMA Laboratories, Inc.

### Healing Capabilities

The AMA Laboratories study used subjects with skin sites exposed to different levels of UV radiation (1.0 MED, 1.5 MED, 2.0 MED and 2.5 MED).

Chart 1 details sites treated with a cream composed of 5% SOLaleur/15% other triglycerides on three sites:

- Site 1: 15 minutes prior to UV exposure (Green)
- Site 2: Immediately after UV exposure (Blue)
- Site 3: 24 hours after UV exposure (Yellow)

One site was left untreated to act as a control.

Each site's erythema was rated and compared to the untreated skin for each radiation level. After treatment, each site's average reduction was compared to the controlled site to determine the overall effectiveness. Chart 2 details the same procedure for a 10% SOLaleur/10% other triglycerides cream. Chart 3's cream was composed of 15% SOLaleur/5% other triglycerides.

# SOLaleur®

## The Results: Effective Erythema Suppression

After analyzing the data, the AMA Laboratories study conclusively demonstrated noticeable erythema reduction with SOLaleur use before or immediately after UV exposure. SOLaleur's most effective treatment was as a preventative, though post-damage treatment did help skin healing (see the blue bar in charts 1-3). The test also showed an increased effectiveness as SOLaleur concentration increased.

According to the data, the most critical points were between 24 and 48 hours after exposure – the point where radiation burn pain usually sets in. At 72 hours after exposure, the skin's healing process naturally begins.

### SOLaleur's Proven Benefits:

- Effective erythema reduction when applied immediately after irradiation
- Pro-active shielding that makes the skin less susceptible to damage
- Facilitation of the healing process through vapor permeable protection

## Potential Markets

SOLaleur's proven capabilities make it an ideal component to be integrated into a variety of products. The different industries that can benefit most from SOLaleur are:

#### Sun care products:

For effective protection when exposed to harsh sun conditions

#### Cancer-related radiation burns:

For treatment of chemo-related damage

#### Skin care products:

For additional healing/preventative benefits

#### Moisturizing products:

For increased healing and protection of dry, cracked skin

"SOLaleur is a 'molecular Band-Aid.' More sophisticated than standard Band-Aids, SOLaleur can protect the skin and provides a vapor-permeable barrier that induces healing."

#### Dr. Harry Ako, University of Hawaii

Professor & Chairman, Dept. of Molecular Biosciences and Bioengineering

This material is based upon work supported by the Cooperative State Research, Education and Extension Service, U.S.D.A., under Award No. 2005-39537-1555 and the Economic Development Alliance of HI.

© 2009 COPYRIGHT OILS OF ALOHA. ALL RIGHTS RESERVED.

## Moisturization Test & Results

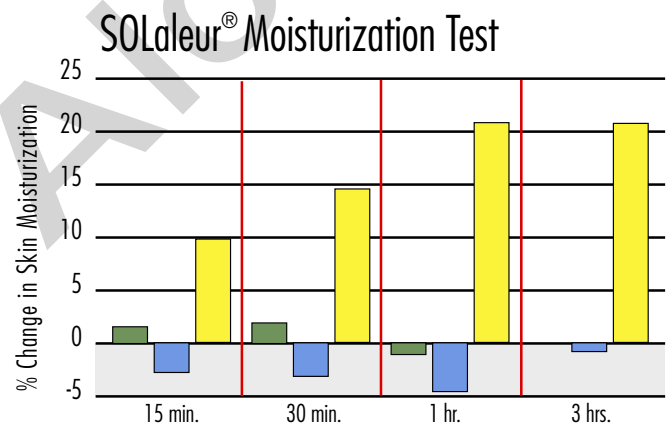
In addition to the erythema suppression tests, AMA Laboratories examined SOLaleur moisturization benefits using a Novameter on three sites per test subject:

Site 1: Untreated (Green)

Site 2: Emulsion with 20% triglyceride and NO SOLaleur (Blue)

Site 3: Application of pure SOLaleur (yellow)

Novameter readings were taken at intervals of 15 minutes, 30 minutes, one hour, and three hours per site. The results, as shown in Table 1 and Chart 4, conclusively demonstrate how SOLaleur effectively maintains a positive moisture level.



		Site 1	Site 2	Site 3
<b>TABLE 1</b>	BASELINE	98.22	96.44	94.22
	15 MINUTES	98.89	93.33	103.33
		0.68%	-3.23%	9.67%
	30 MINUTES	99.11	93.33	107.56
		0.90%	-3.23%	14.15%
	1 HOUR	97.33	93.11	114.22
		-0.90%	-3.46%	21.23%
	3 HOURS	98.22	96	114.44
		0.00%	-0.46%	21.46%

### Oils of Aloha® SOLaleur®

INCI Name: Aleurites Moluccana Seed Oil  
Macadamia Ternifolia Seed Oil, Tocopheryl Acetate



For more information, contact Oils of Aloha® agents.  
Post Office Box 685  
66-935 Kaukonahua Road, Waialua, Hawaii 96791  
800.367.6010 • 808.637.5620 • fax 808.637.6194  
www.OilsofAloha.com