

**Tradename:** AcquaSeal® Algae

**Code:** 20852

**CAS #:** N/A

**Test Request Form #:** 3723

**Lot #:** NC170831-I

**Sponsor:** Active Concepts, LLC; 107 Technology Drive Lincolnton, NC 28092

**Study Director:** Maureen Danaher

**Principle Investigator:** Jennifer Goodman

**Test Performed:**

24 Hour Moisturization/Hydration Assay

**Introduction**

Dehydrated skin is more prone to various forms of UV damage. Hydration can reduce the appearance of fine lines and wrinkles by improving skin elasticity. Proper skin hydration can also reduce breakouts by regulating the oil production of skin. Skin that is properly hydrated can appear healthier and more youthful in appearance.

The Moisturization Assay was conducted to assess the moisturizing ability of **AcquaSeal® Algae**.

**Assay Principle**

The moisture module provides information about the skin's hydration by measuring the conducting properties of the upper skin layers when subjected to an alternating voltage. The method is referred to as a conductance measurement and the output is presented in the unit of uSiemens (uS). A moisture pin probe is the tool used to gather hydration values.

**Materials**

**A. Equipment:** DermaLab Skin Combo (Hydration/ Moisture Pin Probe)

**Methods**

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20 volunteers M/F between the ages of 23 and 45, known to be free of any skin pathologies participated in this study. A DermaLab Corneometer was used to measure the moisture levels on the subject's volar forearms. The Corneometer is an instrument that measures the amount of water within the skin. The presence of moisture in the skin improves conductance, therefore results in higher readings than dry skin. Hence, the higher the levels of moisture, the higher the readings yielded from the Corneometer. Baseline moisturization readings were taken when the study commenced (t=0).

Following initial measurements, all subjects were asked to apply 2 mg of each test material on their volar forearms. Measurements were taken immediately after application of test materials and then again 24 hours after the application of the test materials. The experimental material consisted of 2.0% **AcquaSeal® Algae** in a base lotion.

For added perspective, measurements of an untreated test site and a site treated with a base lotion (Cetaphil Moisturizing for All Skin Types) were recorded.

## Results

**AcquaSeal® Algae** showed very high moisturizing capabilities at a 2.0% concentration. Please note each value is an average of three consecutive readings per test site.

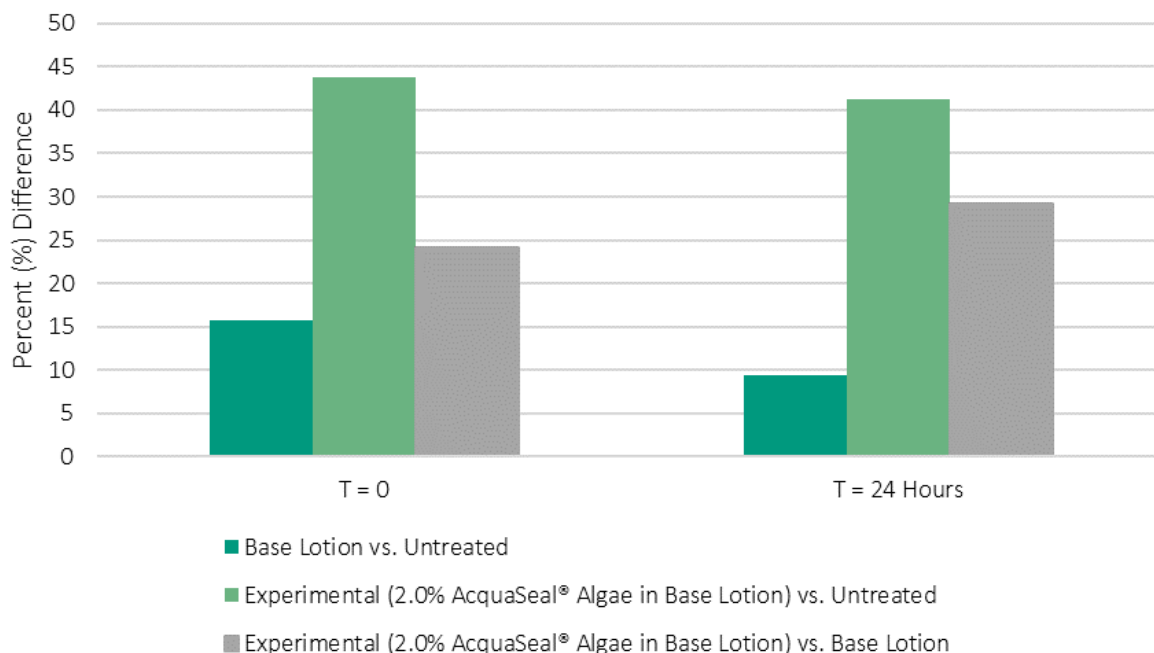
Averages	T = 0	T = 24 Hours
Experimental (2.0% AcquaSeal® Algae in Base Lotion)	50.05	50.5
Base Lotion	40.3	39.1
Untreated	34.8	35.75

Table 1. Average moisturization readings.

Percent (%) Change	T = 0	T = 24 Hours
Base Lotion vs. Untreated	15.8	9.4
Experimental (2.0% AcquaSeal® Algae in Base Lotion) vs. Untreated	43.8	41.3
Experimental (2.0% AcquaSeal® Algae in Base Lotion) vs. Base Lotion	24.2	29.2

Table 2. Percent change in moisturization.

## Comparative Moisturization



**Figure 1.** Comparative moisturization increase.

### Discussion

As evidenced in the 24-hour efficacy study of **AcquaSeal® Algae** on the skin, moisture levels were improved by 41% after 24 hours when compared to the untreated control. When compared to the base lotion, **AcquaSeal® Algae** improved moisturization by 29% after 24 hours. Results indicate that **AcquaSeal® Algae** is capable of increasing moisturization more effectively than the base lotion after 24 hours.