



Arbor Organics

NOP Organic Acerola Ferment Code: A40001

One of the newly emerging and increasingly popular “superfruits”, acerola, also known as the Barbados Cherry, is most valuable for its remarkably high level of vitamin C. **NOP Organic Acerola Ferment** offers all the benefits of this naturally occurring vitamin C and through fermentation, provides increased bioavailability and activity. When applied to the skin, this ingredient acts as an antioxidant and promotes collagen synthesis, actions that combine to protect and renew skin cells.



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Trade Name:	NOP Organic Agave Ferment
Code:	A40002
INCI:	Water & Oryza Sativa (Rice) Extract & Saccharomyces/Malpighia Glabra (Acerola) Fruit Ferment Filtrate
Status:	Proposed
Suggested Use Level:	1 - 10%
Suggested Applications:	Antioxidant, Cell Respiration, Collagen Production

Acerola has recently gained a formidable reputation as a “superfruit” in health and nutrition circles. Also known as the Barbados Cherry, this vitamin-packed fruit boasts impressive levels of vitamin C, as well as significant amounts of other vitamins and minerals.¹ When used in a topical application for the skin, acerola’s contents provide considerable antioxidant activity, moisturization, increased cell renewal, and collagen production.^{1,2,3} Arbor Organics’ **NOP Organic Acerola Ferment** is a unique product in the organic extract market due to its known activity levels. It is standardized for vitamin C and is fermented to provide a truly bioactive, certified organic, vitamin-packed product that has remarkable cell respiration and metabolism properties.

The bright red acerola fruit is native to the West Indies, South America, and India. It has caused quite a stir in the nutrition field, mostly due to the fact that 100 grams of oranges and acerola each have 50 and 17,000 milligrams of vitamin C, respectively.¹ Oranges have long been touted as the premier source for the vitamin, but acerola’s superior content provides limitless options, including several functions in cosmetics and personal care products.

Two major properties of vitamin C, and in turn acerola, allow our acerola products to protect, renew, and reinforce skin cells, yielding healthier, smoother skin: antioxidant activity and collagen synthesis. Vitamin C is a renowned antioxidant, and, when applied to skin cells, acts as a free radical scavenger, neutralizing the harmful molecules that can damage skin.² Vitamin C also plays a vital role in synthesizing collagen, a skin protein that is key to proper structure and function.² Tests have shown that **NOP Organic Acerola Ferment** is exceptionally effective at increasing collagen synthesis. High levels of collagen production allow skin to hold its structure and maintain its function, crucial elements of healthy skin.

An important component of **NOP Organic Acerola Ferment** is an active fermentation process, which increases the bioavailability of several chemical compounds by freeing them from the matrix to which they are usually bound. This process causes increased cell metabolism and respiration when applied to the skin. By including such a method in this product, various beneficial phytochemicals can be isolated and concentrated in the solution and therefore transferred to the skin.

It has been proven that drinking an acerola beverage significantly improves several aspects of skin conditions, caused by vitamin C activity and the presence of other important vitamins and minerals.⁵ Topical applications of acerola can have the exact same effects if applied with an appropriate, effective formulation. **NOP Organic Acerola Ferment**'s base is a certified organic rice solution, which, due to its high carbohydrate level, is an excellent moisturizer and serves as an ideal foundation for the active ingredients. Tests have shown that the solution increases moisturization of the skin by almost 10% compared to controls.

References:

1. "Acerola Information". <http://www.herbalremedies.com/acerola-information.html>. Retrieved August 13, 2008.
2. "Vitamin C for wrinkles and skin aging". <http://www.smartskinicare.com/treatments/topical/vitc.html>. Retrieved August 13, 2008.
3. "US Patent 6074647". <http://www.patentstorm.us/patents/6074647/claims.html>. June 13, 2000. Retrieved August 13, 2008.
4. Takahashi, et al. "Beneficial Effect of Brewers' Yeast Extract on Daily Activity in a Murine Model of Chronic Fatigue Syndrome". *Evidence-based Complementary and Alternative Medicine*. 3: 109-115. 2006.
5. "Effects of acerola beverage intake on skin conditions". *Journal of the Japanese Society for Food Science and Technology*. 55 (1): 6-12. 2008.