

Emblica Cascading Antioxidant: A Novel Natural Skin Care Ingredient

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Key Words

Antioxidant · Pro-oxidant · Transition metals · Oxidative stress · Skin care · Natural product · Hydrolyzable tannins · *Phyllanthus emblica*

Abstract

A standardized extract of *Phyllanthus emblica* (trade named Emblica) was found to have a long-lasting and broad-spectrum antioxidant activity. The product has no pro-oxidation activity induced by iron and/or copper because of its iron and copper chelating ability. Emblica helps protect the skin from the damaging effects of free radicals, non-radicals and transition metal-induced oxidative stress. Emblica is suitable for use in anti-aging, sunscreen and general purpose skin care products.

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Emblica (a trade name product of Merck KGaA, Darmstadt, Germany and EM Industries, Inc., USA, an affiliate of Merck KGaA) cascading antioxidant is a well-defined mate-

rial, isolated from the fruits of *Phyllanthus emblica* (syn. *Emblica officinalis* Gaertn). This plant ranges in status from insignificant in the Western world to highly prized in tropical Asia. The tree is graceful ornamental, normally reaching a height of 60 ft (18 m) and in rare instances of 100 ft (30 m). *P. emblica* is one of the important Ayurvedic ('science of life') herbs in India, and has been used for over thousands of years for a wide variety of human ailments [Chopra et al., 1956]. Our study on the antioxidant constituents of *P. emblica* is centered around its skin care benefits, as there has been no systematic work done so far on this product. Product attributes of Emblica are summarized below:

Product Attributes

- A safe and effective natural antioxidant
- Well-defined material
- Pro-oxidation-free antioxidant
- Dual functionality: chelation and antioxidant, two functions are separated
- Cascading effect provides long-lasting activity

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