



Applications of Crocin

Cosmetic

Saffron is used in pharmaceutical and health care products as well as a flavoring and a coloring agent in foods. The tincture of saffron used to remove pimples and soothe rashes in Persian traditional medicine mostly by Avicenna (980-1037) worldly physician who lived a thousand year ago (980-1037). The characteristic yellow-orange color of saffron (*Crocus Sativus* L.) comes from water-soluble pigment, the carotenoid Crocin.¹

As one of the Persian traditional medications, saffron, has been used in order to add shine, lighten the skin and reduce dark pigments, dark circles under the eyes, acne and pimple.

It is suspected that Crocin inhibits active compound of DNA damage, or acts as an activator for DNA excision repair enzymes. Furthermore, saffron has anti-solar effect and can absorb UV rays of sun.²

Crocin, The extracted carotenoid from saffron as an antioxidant prevents many common diseases by taming harmful molecules known as free radicals.¹ Free radicals are atoms or group of atoms, which originate from sources including environmental toxins, and chemical toxins. Aging of skin is the result of the oxidation of free radicals in the skin and saffron carotenoids scavenge light-induced free radicals thereby reducing the damaging effects of long term exposure to UV rays on skin cells.¹

The sun is potentially our skin's worst enemy, sending out damaging ultraviolet rays (UV) that not only dry our skin, rather can cause alterations in skin cells that can lead to various skin disorders and possibility skin cancer. Most of the damage caused by the sun that means we are all at risk; our skin needs more preventative actions, with the antioxidants. Wrinkling of the skin

¹ Hossein Fekrat R & D Department, Tarvand Saffron Canada Inc. The Application of Crocin and Saffron Ethanol-Extractable Components in Formulation of Health Care and Beauty Care Products

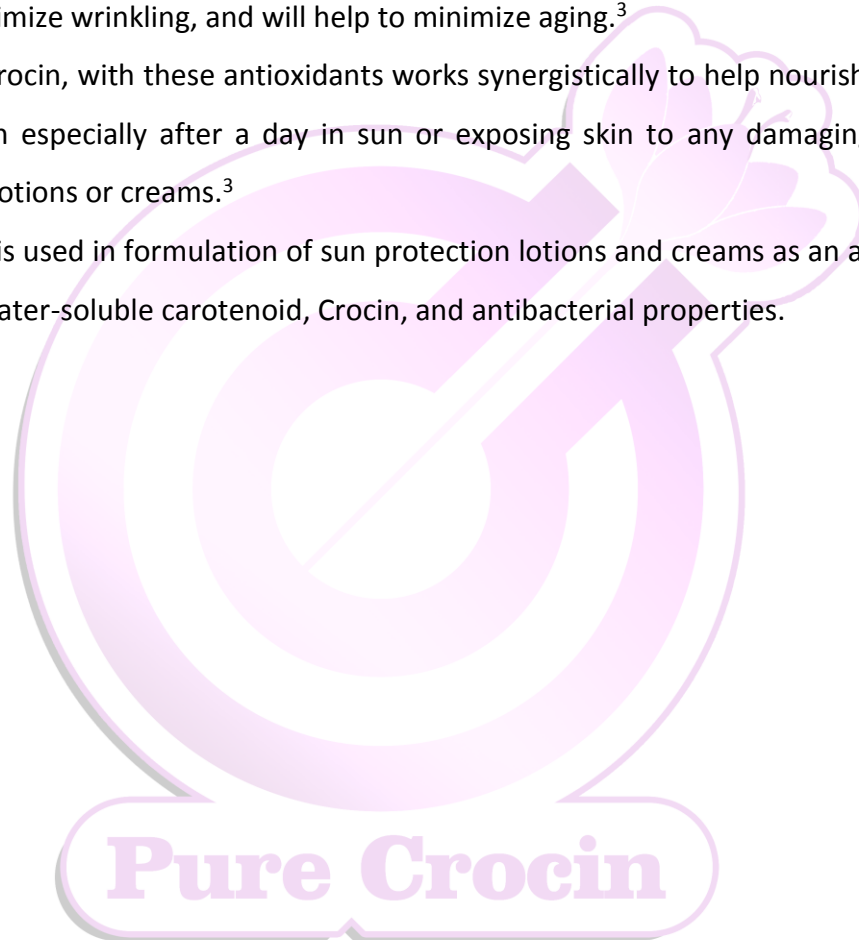
² M. Moshiri¹, M. Vahabzadeh , H. Hosseinzadeh Clinical Applications of Saffron (*Crocus sativus*) and its Constituents: A Review



occurs when it loses its elasticity and for many is a visible sign of aging. Aside from natural aging process, other factors contributing to wrinkling include sun exposure, poor nutrition, muscle tone, stress, exposure to environment pollutants, smoking and poor skin care. Keeping the skin supple through moisturizers and supplements, as well as protecting it from free radical damage will help to minimize wrinkling, and will help to minimize aging.³

Saffron color, Crocin, with these antioxidants works synergistically to help nourish, hydrate and protect the skin especially after a day in sun or exposing skin to any damaging elements in formulation of lotions or creams.³

Saffron extract is used in formulation of sun protection lotions and creams as an antioxidant for the reason of water-soluble carotenoid, Crocin, and antibacterial properties.



³ Hossein Fekrat R & D Department, Tarvand Saffron Canada Inc. The Application of Crocin and Saffron Ethanol-Extractable Components in Formulation of Health Care and Beauty Care Products