



All-Ex CareTM *capsaisin*



Bionley

www.bionley.com

We are inspired
by *nature*.



Bionley



*All- Ex Care*TM Capsaisin our latest discovery

The red pepper (*Capsicum annuum*) is commonly used in culinary dishes for its unique flavour. This flavour comes from its unique range of bioactive compound. It contains vitamin C, vitamin A, B-complex group of vitamins, capsaicin and flavonoids like β -carotene, α -carotene, lutein and zeaxanthin. Also contains different minerals like calcium, folate, potassium, manganese, iron, and magnesium. All-Ex CapsaisinTM is a blend mixture of these compound.

Most remarkable bioactive compound in this mixture is capsaicin. Capsaicin gives hot spicy flavour when it is used in cooking. In cosmetic formulations capsaicin shows high bioactivity. Capsaicin increases collagen synthesis and blood flow on the applied area. Also, it helps to reduce inflammation.

Capsaicin is totally safe when it is used right. According to Food and Drug Administration (FDA) capsaicin is GRAS (generally recognized as safe) for use in cosmetic formulations that are not irritating.

Considering latest research about capsaicin and our practise in the industry we offer you standardized cosmetic grade red pepper extract, *All- Ex Care*TM Capsaisin

The benefits of pepper extract in topical treatment

Red pepper extract shows antioxidant, anti-inflammatory and anti-microbial properties which target common skin concerns such as aging and uneven skin tone and texture. Its capsonoid content additionally stimulates blood circulation and helps to detoxify skin leading to youthful and healthy-looking skin. Its high concentration of vitamins C and E, and rich in antioxidants gives radiance booster effect for the skin.

It is also rich in lycopene which possesses antioxidants and helps to aid the production of collagen and elastin ensuring that skin looks firm, plump, healthy and youthful.

Topical application of capsaicin and related compounds may stimulate some type of insulin like growth factor, IGF-1, that helps to production in hair follicles which promotes hair growth and may be useful in the treatment of skin disorders of patients with growth hormone deficiency and in the elderly. Vitamin C also beneficial effect on hair, it assists the flow of oxygen to hair follicles and helps build collagen which aid the growth of strong, healthy hair.

When administered topically, capsaicin can enhance penetration of anti-inflammatory agents, suggesting that caution should be exercised in using capsaicin-containing cosmetic products.



a



b



Hair re-growth in WT mice was shown at 4 weeks after hair removal and administration of capsaicin. (a) Control; (b) capsaicin.



Hair growth was observed at 5 months after administration of capsaicin on volunteers with alopecia.

Claim Ideas for All-Ex Care™ Capsaisin

- Antidandruff
- Antifungal
- Antimicrobial
- Antioxidant
- Cosmetic astringent
- Hair conditioning agent
- Skin protectant
- Anti-inflammatory
- Cleansing



Use in cosmetics

Benefits attributed to its rich phytochemical constituents derived from capsaicinoid bioactive in plant. Capsaicinoids includes capsaicin, dihydrocapsaicin, homocapsaicin, homodihydrocapsaicin, nvanillyldecanamide, nordihydrocapsaicin these constituents are the active ingredients that account for the rich medicinal phytochemistry of red pepper. Capsaicin and its related compounds are the active ingredients in pepper that are related to the anti-microbial and anti-inflammatory and other beneficial properties in pepper.

Red pepper contains an extensive range of secondary metabolites with renowned antioxidant properties. For example, carotenoids, capsaicinoids and phenolic compounds, predominantly flavonoids, quercetin, and luteolin. Carotenoids are among the most significant antioxidants of pepper besides phenolics and flavonoids which act synergistically as efficient free radical scavengers. The antioxidant activity of pepper increases with advanced stages of ripening as more carotenoids are synthesized. In different red pepper cultivars, a gradual increment, up to six-fold, of β -carotene with a strong positive correlation to antioxidant activity was observed from the green mature to the red ripe stage.

Red pepper extracts in cosmetic products concentration up to 1% which equals to concentrations of 0.005% Capsaicin recognised as safe. Capsaicin concentration above 0.05% may have irritate skin.

Applications

Skin care products, especially for mature and inflamed skin
Massage and sports products
Lip care products
Bath & shower products
Hair care products for scalp treatment (hair tonics 1% to 5%)
Masking
Tonic





