

**Name: EDELWEISS EXTRACT NATURAL**

**1.Type:** Natural extract from Edelweiss (*Leontopodium ochroleucum Beauverd* )



## **2. Technical data:**

The plant contains phytochemical substances Edelweiss such as the chlorogenic acid, luteolin, diverted Bisabolan, and beta sitosterol who demonstrate antiseptic and anti-inflammatory antioxidant, properties. The edelweiss extract is normalized in 0,23 % of compounds polyphénoliques. The anti-inflammatory characteristics of edelweiss extract demonstrated high-performance antioxidant without properties of radicals trapping. The edelweiss extract is particularly recommended for anti-ageing formulations, the stress anti-oxidizing formulations and solar formulations.

## **3. Description**

The plant is unequally distributed and prefers rocky limestone places at 2000–2900 m altitude. It is not toxic, and has been used traditionally in folk medicine as a remedy against abdominal and respiratory diseases. The dense hair appears to be an adaptation to high altitudes, protecting the plant from cold, aridity and ultraviolet radiation. Since it usually grows in inaccessible places, it is associated in many countries of the alpine region with mountaineering.

In its natural environment, this plant is subject to strong radiations U.V., a low atmospheric pressure and variations of temperature and extreme humidity. During its evolution, the edelweiss developed protective metabolites which the nature optimized throughout the millenniums. These compounds have on the skin very useful protective effects. The edelweiss is used by the cosmetics industry for its anti-inflammatory properties.

## **4. Applications**

- RADICALS EFFET: the edelweiss extract possesses extraordinary properties antioxidant and free anti-radicals.
- SOFTENER: the edelweiss possesses softness properties

Thanks to these properties, the extract of edelweiss represents an ideal ingredient for the treatment of the sensitive and damaged skin, and its incorporation is justified, in particular, in the anti-ageing preparations.

### **- Pharma:**

- a) anti-inflammatory properties, by inhibition of chemotaxis inflammatory cells cannot immigrate into dermis.
- b) anti-bacterial properties: bactericides and fungicides elicited from plants
- c) Anti-inflammatory and analgetic and anti-swelling properties in vivo (animal experiments)



## **Cosmetic:**

### **a) Sun protection**

Because we deduced from its remarkable adaptation to high altitude that it must contain molecules protecting the plant against UV rays. This was proved by analysis: a high amount of flavonoids and phenolic acids was found. Plant extracts as cosmetic actives are rarely used over 1 %. An ethical approach to natural cosmetics requires natural formulas, and natural formulation ingredients exist, often stemming from ... the primary metabolism of plants: vegetable oils, emulsifying proteins, thickening polysaccharides.

AB Environmental extremes generally induce considerable body discomfort. Hot and humid conditions cause reactions in the skin such as increased expiration through water evaporation. Ultraviolet radiation including the heating phenomena may result in sun damage. Rashes and general erythema may arise from frictional contact with clothing in hot/humid conditions.

Dry climates lead to body dehydration and the skin must be remoisturized. Cold climates also disrupt the skin barrier leading to cracking and roughness. Claimed is a cosmetic composition for calming skin stressed under a variety of extreme climate conditions consisting essentially of a mixture of aloe vera gel, sea parsley extract, red clover extract, kava kava extract, bittersweet extract, guava extract, sea pine extract, prickly pear extract, edelweiss extract and watercress extracts as active botanical ingredients.....

### **b) Anti-Aging**

A cosmetic complement is provided effective against stresses of climate extremes. The complement includes hot, cold and dry climate treatment portions. The hot climate treatment portion has a first botanical ingredient to impart a cool sensation, and a sunscreen agent. The cold climate treatment portion has a second botanical ingredient to combat skin inflammation, and a silicone fluid or hydrocarbon for retaining moisturize. The dry climate treatment portion has a third botanical ingredient to impart moisturization and an ester.

## **5. Chemical formula:**

The constituents were isolated on silica gel column chromatography, preparative TLC and Sephadex LH-20 column chromatography, identified by physicochemical properties and the structures were elucidated by spectral analysis. Results Five compounds were isolated and identified as berberin(1), daucosterol(2),  $\beta$ -sitosterol(3), vanillic acid(4) and caffeic acid(5). Conclusion Compound 1 and 2 were isolated from *Leontopodium leontopodioid* for the first time, while compound 1 was isolated from *Leontopodium* for the first time.

## **6. Stability:**

Storage: protect from the direct light and from the humidity in a temperature of 50 ° 77 ° F (10 ° 25 ° C)

Shelf life: 18 months in the sealed bowl.