

TECHNICAL DATA SHEET

Product name: Arnica Powder 10:1

INCI Name: Arnica Montana Flower Extract

CAS: 68990-11-4

Synonyms: Mountain Arnica, Leopard's Bane, Wolf's Bane, Mountain Tobacco, Mountain Daisy, Fallkraut, Wundkraut.

Product Quality: The product is concentrated in a ratio of 10:1, meaning that the amount of plant material used to obtain the extract is 10 times greater than the final amount of extract. This ratio is used to emphasize the strength and effectiveness of the extract.

Origin of the raw material: China

Description: Mountain Arnica (*Arnica montana*), also known as Leopard's Bane or Wolf's Bane, is a mountainous, aromatic plant ranging from 20 to 60 centimeters in height. It belongs to the Arnica genus and the Asteraceae family. It grows in dry meadows, mountain slopes, and hills across almost all of Europe. The medicinal parts of the plant include the flower, root, and leaf. The flower is collected during flowering, and the root in spring. The extract contains: helenalin, arnicin, essential oil, resin, wax, tannins, sugar, organic acids, carotenoids (zeaxanthin), vitamin C, flavonoids, polyacetylenes, macro and microelements. The extract is yellowish-brown in color and soluble in water.

Benefits:

• **Anti-inflammatory action:** Active ingredients in arnica, such as sesquiterpene lactones (helenalin), have the ability to block the activation of the NF-κB protein, which plays a central role in regulating inflammation. NF-κB activation leads to the production of inflammatory cytokines, such as interleukin-1 (IL-1), interleukin-6 (IL-6), and tumor necrosis factor-alpha (TNF-α). Arnica prevents NF-κB from entering the cell nucleus and initiating the cascade that leads to the production of pro-inflammatory substances. Additionally, the inflammatory response often involves the migration of leukocytes (white blood cells) to the site of inflammation. Sesquiterpene lactones can inhibit this migration, thereby reducing the presence of leukocytes at the site of inflammation. The

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result is a reduction in inflammation in the skin, including redness, swelling, and pain typically associated with inflammation.

- **Cyclooxygenase (COX) inhibition:** Cyclooxygenase is an enzyme responsible for the production of prostaglandins, which are key mediators of pain and inflammation. Flavonoids and phenolic acids present in arnica can inhibit the activity of the COX enzyme, thereby reducing the production of prostaglandins and alleviating inflammation. Because of this property, arnica is used in products designed to relieve muscle and joint pain. It is often used in massage oils and balms.

- **Antibacterial and antiseptic properties:** Arnica possesses antibacterial and antiseptic properties, making it useful in preventing infections and addressing minor skin issues. This is particularly beneficial in cleansers and acne-prone skin treatments.

- **Skin conditioning:** Arnica conditions the skin, improving its appearance and texture. It is often included in moisturizing creams and serums to enhance skin hydration and elasticity.

- **Hair growth stimulation:** Some studies suggest that arnica may stimulate hair follicle growth, making it a potential ingredient in hair growth products.

Usage: Used to prepare aqueous-glycerin extracts, glycerites, tinctures, and other cosmetic semi-finished products. Recommended concentrations range from 1-10%.

Storage and shelf life: Stable when stored in a dry and cool place. Shelf life is 2 years.

Animal testing: The substance has not been tested on animals.

GMO: Not GMO

Vegan: Does not contain components of animal origin