

## TECHNICAL DATA SHEET

**Product Name:** Licorice Root Powder 10:1

**INCI Name:** Glycyrrhiza Glabra Root Extract

**CAS:** 68916-91-6

**Botanical Name:** Glycyrrhiza Glabra Root Powder

**Synonyms:** Licorice, Sweet Root, Our Lady's Herb, Sweet Wood, Sugar Root, Liquorice, Alcacuz, Chinese licorice, Gan cao, Gan zao, Glycyrrhiza glabra, Lakritze, Lakritzenwurzel, Orozuz, Regliz, Russian licorice, Spanish licorice, Sweet root, Yashtimadhu.

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

**Origin of Raw Material:** China

**Description:** Licorice is a perennial herbaceous plant from the legume or pea family (Fabaceae), originating from southern Europe and parts of Asia. It grows near rivers on sandy and clay soils. It has a strong, branched root, above-ground and underground rhizomes from which shoots develop. The upright stem can reach up to 2 meters in height, eventually becoming woody at the bottom. The leaves are odd-pinnate, with 4-8 pairs of leaflets. The flower has the typical structure of legumes, with a yellow-white corolla. The flowers are in clustered inflorescences at the top of the stem. The fruit is a flat, brown pod. The root of the plant, which contains the main active ingredient glycyrrhizin (50 times sweeter than sugar), is used for making the powder. It has anti-inflammatory and antioxidant properties and also aids in modulating the immune system. Licorice contains flavonoids, liquiritigenin, and glabridin. These compounds have antioxidant, antiviral, and antimicrobial properties. The root also contains isoflavones, coumarins, and phytoestrogens.

### Benefits:

- **Anti-Inflammatory Action:** The phytochemical glycyrrhizin, structurally similar to corticosteroids, has powerful anti-inflammatory properties. Glycyrrhizin inhibits

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enzymes involved in the production of inflammatory mediators in the body, such as prostaglandins and leukotrienes, reducing redness, swelling, and skin irritation. This makes licorice extract useful in treating skin conditions like eczema, psoriasis, and acne. Tyrosinase Inhibition: Glabridin, one of the active ingredients in licorice extract, inhibits the activity of the enzyme tyrosinase, which is crucial in the biosynthesis of melanin, the pigment responsible for skin color. By reducing the activity of this enzyme, glabridin helps decrease melanin formation, contributing to the reduction of hyperpigmentation and dark spots.

- **Antioxidant Activity:** Flavonoids present in licorice extract are powerful antioxidants that neutralize free radicals produced by UV exposure and pollution. They help protect skin cells from oxidative stress, preventing signs of premature aging such as wrinkles and loss of firmness.

- **Regulation of Sebum Secretion:** The flavonoid, Licochalcone A, is one of the key components in licorice root that helps regulate the secretion of sebum. It acts anti-inflammatory and can modulate the production of fatty acids in the skin, leading to reduced sebum production. By reducing excessive sebum secretion, the extract can help control and prevent acne. Beta-sitosterol, one of the sterols present in licorice, can also help control sebum production by stabilizing the skin's lipid layers.

- **Anticoagulant Effects:** Coumarins by inhibiting blood clotting factors can improve microcirculation in the skin and contribute to a better skin appearance.

- **Phytoestrogenic Activity:** Isoflavones have a structure similar to estrogens, allowing them to bind to estrogen receptors in the skin, which can help regulate hormonal balance and reduce symptoms of dry skin or loss of elasticity associated with hormonal changes.

- **Antimicrobial Properties:** Licorice extract has the ability to inhibit the growth and reproduction of bacteria and fungi on the skin, making it useful in treating and preventing skin infections.

**Usage:** Used for making aqueous-glycerin extracts, glycerites, tinctures, and other cosmetic semi-products. Recommended concentrations range from 5-10%.

**Storage:** Stable when stored in a dry and cool place. Approximate shelf life of 2 years.

**Animal Testing:** The substance has not been tested on animals.

**GMO:** Not GMO.

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