

## TECHNICAL DATA SHEET

**Product Name:** Basil Extract

**INCI name:** Glycerin, Aqua, Ocimum basilicum, Benzyl Alcohol, Dehydroacetic Acid

**CAS:** 56-81-5, 7732-18-5, 8015-73-4, 100-51-6, 520-45-6

**Latin name:** Ocimum basilicum L.

**Chemical classification:** Mixture

**Functional category:** Skin and hair conditioning agent, humectant, emollient

**Extraction method:** The extract is obtained by ultrasound-assisted extraction using ultrasound frequencies between 20 and 25 kHz. At these frequencies, ultrasonic waves create microscopic bubbles in the liquid containing the plant material, leading to a phenomenon known as cavitation. Cavitation generates extreme local conditions of increased pressure and temperature in the micro-environment around the imploding bubbles. This mechanically disrupts the plant cell walls, releasing intracellular active components and significantly increasing the speed and efficiency of extraction. The process is carried out at 25 °C in order to preserve thermolabile constituents such as flavonoids, vitamins and essential oil traces. Compared with conventional maceration, ultrasound extraction enables a shorter processing time, higher yield and better utilization of the plant material. The obtained extract is preserved with a combination of benzyl alcohol (0.86%) and dehydroacetic acid (0.14%), a system approved for use in natural cosmetics and compliant with ECOCERT and COSMOS standards. The extract is water-soluble, making it easy to incorporate into various water-based cosmetic formulations. The pH value of the finished extract ranges from 4.0 to 6.5, which makes it suitable for most dermal applications without additional pH adjustment.

**Description:** Water-glycerin basil extract (*Ocimum basilicum*) is intended for cosmetic use and is valued for its soothing, antioxidant and refreshing properties. It is obtained from the leaves of the plant in a stable combination of glycerin and water, which preserves the active components and ensures good skin tolerance. The extract is rich in flavonoids, phenolic acids and traces of essential oils, which show anti-inflammatory and mild antiseptic effects. It is especially beneficial for problematic, tired or sensitive skin, as well as for sensitive regions such as the area around the eyes. Thanks to glycerin, it

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provides intensive hydration and supports the natural skin barrier. It is formulated with mild preservatives (benzyl alcohol and dehydroacetic acid), making it stable and safe for everyday use. It does not clog pores, integrates easily into toners, serums, gels and emulsions, and is suitable for natural, balancing skincare. The extract is light yellow, odorless and water-soluble.

**Bioactive compounds:** Basil extract contains a rich complex of phenolic compounds, flavonoids, polyphenols and phenolic acids, which act as antioxidants and help protect skin cells from oxidative stress. The leaves naturally contain essential oils primarily eugenol, linalool and estragole known for antimicrobial and soothing effects, while eugenol also shows potential analgesic and anti-inflammatory properties. The presence of terpenes such as beta-caryophyllene and citral contributes to the anti-inflammatory effect, while triterpenoids such as ursolic and oleanolic acid further support regenerative skin processes. The extract is also a natural source of vitamins C, B2, PP, rutin and beta-carotene (a precursor of vitamin A), which together contribute to brightening, strengthening and protecting the skin. Minerals such as calcium, potassium, manganese and magnesium are also present, important for cellular metabolism and overall skin health. The value and concentration of these phytoactive compounds may vary depending on the plant variety, cultivation conditions and extraction method, but the overall composition gives basil extract a wide spectrum of cosmetic benefits from protection and soothing to revitalization and toning.

### Benefits:

- Protects the skin from free-radical damage and contributes to a fresher, more even complexion.
- Soothes redness and irritation thanks to anti-inflammatory components such as beta-caryophyllene.
- Shows antibacterial and antifungal activity, useful for acne-prone and impure skin.
- Helps remove excess sebum and impurities, leaving the skin clean and refreshed.
- Improves skin texture softer, hydrated and smoother.
- Supports the natural healing of minor lesions and calms inflamed areas.

**Directions for use:** Water-glycerin basil extract is used as a functional ingredient in the

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aqueous phase and is added during the cold-process phase, ensuring preservation of thermolabile bioactive compounds such as flavonoids, phenolic acids and traces of essential oils. Recommended usage level is 1–5%, depending on the product type and desired activity. In toners, micellar waters and cleansers: up to 2%. In serums and gels for problematic or oily skin: 3–5%. In emulsions (lotions and creams): added for hydration, tone and balance, often in synergy with other botanical extracts. The extract is compatible with most botanical actives and dermocosmetic systems, stable within pH 4.0–6.5 and does not require additional formulation adjustments. Its light, watery texture allows easy incorporation without affecting the product feel and without leaving an oily film. It is suitable for daily use, for both day and night routines, and for products intended for sensitive, reactive and uneven skin. The extract belongs to the water phase. Typical inclusion level is 5–10%. For external use only.

**Animal testing:** In accordance with Regulation (EC) No. 1223/2009 on cosmetic products, the substance has not been tested on animals. Safety assessment is based on available toxicological data, scientific literature and validated alternative methods (in vitro and in silico). “In silico” refers to computational modeling and simulations rather than testing on live organisms (in vivo) or cell cultures (in vitro).

**GMO:** Not GMO

**Vegan:** Contains no ingredients of animal origin

**Storage and shelf life:** Store in a cool, dry place. Shelf life: 2 years.

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