

TECHNICAL DATA SHEET

Apricot Kernel Oil

Product Name: Apricot Kernel Oil

INCI Name: Prunus Armeniaca Kernel Oil

CAS: 72869-69-3

Synonyms: Prunus armeniaca L., Armeniaca vulgaris Lam., Armenian Plum, Ansu Apricot, Siberian Apricot, Tibetan Apricot

Chemical Classification: Fats and Oils

Functional Category: Skin and hair conditioning agent ~ Emollient

Extraction Method: Expeller-pressed. Expeller-pressed extraction involves the mechanical pressing of seeds or fruits under high pressure without the use of chemical solvents. This method produces an oil that retains most of its natural nutritional and functional properties, although additional filtration or refining is often required to improve stability and achieve a neutral odor.

Processing Type: RBD (Refined, Bleached, Deodorized).

Oil Description: Apricot kernel oil is a mild and nourishing oil highly valued in cosmetics due to its pleasant texture and excellent skin compatibility. It is obtained by mechanical pressing of apricot kernels and is most commonly used in refined form, as this process ensures stability, neutral odor, and a light color, making it suitable for incorporation into a wide range of formulations. Its chemical composition consists predominantly of unsaturated fatty acids, with oleic acid being the dominant component, providing softening and moisturizing effects, while linoleic acid contributes to maintaining skin barrier integrity and hydration balance.

In addition to fatty acids, apricot kernel oil contains significant amounts of vitamin E, a natural antioxidant that protects skin cells from oxidative stress caused by free radicals. Its profile is further enriched with phytosterols such as beta-sitosterol, campesterol, and stigmasterol, compounds that help reduce moisture loss, soothe inflammation, and support skin regeneration. The presence of polyphenols, including quercetin, caffeic acid, and chlorogenic acid, enhances the antioxidant and anti-inflammatory properties of the oil, providing long-term protection and support for skin health.

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In cosmetic formulations, this oil acts as an effective emollient that imparts softness, smoothness, and a velvety skin feel while improving elasticity and tone. Due to its mild and lightweight texture, it is frequently incorporated into formulations intended for sensitive areas such as the eye contour region, where it helps soothe irritation and reduce the appearance of fine lines. Its application in creams, lotions, serums, balms, and hair care products provides not only aesthetic benefits but also functional protection, restoration, and reinforcement of the skin's and hair's natural functions. Regular use of apricot kernel oil is believed to help slow the appearance of aging signs, stimulate collagen and elastin synthesis, and promote a healthy, even, and youthful-looking complexion.

Benefits:

- Rich in vitamin E, a powerful antioxidant that protects cells from oxidative damage.
- Provides hydration and helps soothe inflammatory skin reactions.
- Soothes the skin and supports regeneration.
- Contains polyphenols (quercetin, caffeic acid, and chlorogenic acid) with antioxidant and anti-inflammatory activity.
- Stimulates collagen and elastin synthesis and improves skin elasticity.
- Helps slow the aging process and restores a healthy, youthful appearance to the skin.

Directions for Use: Apricot kernel oil is used in cosmetic formulations as an emollient that improves texture and provides softness and elasticity to both skin and hair. It is most commonly incorporated into the oil phase of emulsions, where it contributes to product stability and sensory quality. In facial and body creams and lotions, it is typically used at concentrations ranging from 2–10%, while in balms, body butters, and oil blends it may be present at significantly higher levels, even up to 50%, depending on the desired texture. In hair care products such as conditioners and oil serums, it is usually added in lower concentrations, from 1–5%, to improve shine and hair fiber elasticity without creating a heavy feel. Thanks to its gentle and lightweight texture, the oil is also well tolerated in formulations intended for sensitive areas such as the eye contour, where it is used at low concentrations to provide hydration and protection without irritation.

Safety in Use: The Cosmetic Ingredient Review (CIR) Expert Panel evaluated the safety of apricot kernel oil as part of a broader group of plant-derived oils and fats originating from the Rosaceae family. In a report published in 2001 and later reaffirmed in periodic reviews, the panel concluded that *Prunus Armeniaca* (Apricot)

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Kernel Oil is safe for use in cosmetic products at concentrations commonly used within the industry. The panel emphasized that the oil is typically used from several percent in emulsions to significantly higher concentrations in oil blends, balms, and butter-type products, even up to 50% or more, without reported adverse effects. It was specifically noted that the oil is well tolerated by the skin, non-irritating, and non-comedogenic, making it suitable for formulations intended for sensitive skin types as well. Based on the available toxicological and dermatological data, CIR confirmed that apricot kernel oil may be used without restrictions in cosmetic products, provided that the raw material is adequately refined and free from harmful impurities.

Animal Testing: In accordance with current European regulations (Regulation (EC) No. 1223/2009 on cosmetic products), this substance has not been tested on animals. The safety assessment of the raw material is based on available toxicological data, scientific literature, and validated alternative testing methods (*in vitro* and *in silico*). The term *in silico* refers to testing and assessment methods conducted using computer models and simulations rather than on living organisms (*in vivo*) or cell cultures (*in vitro*). This statement confirms compliance with the ban on animal testing and is provided solely for informational purposes regarding the further use of the raw material in cosmetic formulations.

GMO: GMO-free

Vegan: Does not contain ingredients of animal origin