





Akogel™ & Akogel Plus™

Eco-friendly, moisturising vegetable gels for skin care, hair care and colour cosmetic formulations



Vegetable gels for green formulations

Vegetable gels are useful when formulating cosmetics that need that extra touch of moisturisation without the use of petrolatum or other mineral oil based ingredients. They are designed to give a melting profile that provides semisolid texture at ambient temperatures along with moisturising properties at body temperature. They have good oxidative stability without added antioxidants, facilitating the formulation of long-lasting, safe cosmetics with a luxurious feel.

Akogel™ and Akogel Plus™

These ingredients are made from stable vegetable oil with high melting vegetable fats added, offering simple crystallisation and high texturising capacity. They are similar to petrolatum in texture and consistency, but slightly more polar as they are based on triglycerides. They differ slightly in melting behaviour, making it possible to formulate a wide range of skin care products and extending their uses into anhydrous

balms and sticks. Rapid absorption results in a soft and velvety skin feel, as well as high, non-occlusive moisturisation. Akogel and Akogel Plus are manufactured using food ingredient processing methods, readily biodegradable, and approved by Ecocert for natural and organic cosmetics.

Applications

Skin care emulsions for body, face and hands is the main application area. Stability in combination with high moisturising capacity and high purity makes these vegetable gels ideal tools when formulating products for sensitive and dry skin, as well as for infants. May also be used in rinse-off hair conditioners and creamy shower gels to provide softness and moisturising properties.

- Long shelf-life formulations
- Mild moisturisation
- Petrolatum alternatives from renewable sources

Melting profiles for vegetable gels 80 70 60 Akosoft 36™ Solid Phase Content (%) Akogel™ 50 Akogel Plus™ 40 30 20 10 0 10 15 20 25 30 35 40 Temperature (°C)

Melting profiles for vegetable gels from AAK Personal Care. See separate product guide for Akosoft 36.

Application advice – Akogel™ & Akogel Plus™

Skin care			Hair care			Colour cosmetics	
Light lotions and serums	Lotions and creams	Creams and butters	Shampoos	Conditioners	Styling & treatments	Lip balms	Lipsticks
1-3%	2-5%	2-15%	0.5-1.0%	1-2%	2-4%	2-15%	2-5%
Emollient	Emollient & moisturiser	Emollient & moisturiser	Moisturiser & gloss improver	Conditioner & moisturiser	Conditioner & moisturiser	Emollient	Emollient

Product name Akogel™ Akogel Plus™ **INCI** name Hydrogenated vegetable oil Hydrogenated vegetable oil **Product group** High Stability Base Emollients High Stability Base Emollients Physical form 20 °C Semi-solid Semi-solid Regulatory status Cosmetic Regulation EC 1223/2009 Cosmetic Regulation EC 1223/2009 REACH Exempted (Annex IV, SDA11) REACH Exempted (Annex IV, SDA11) **Approvals Ecocert Ecocert** Melting point (°C) 38-40 46-48 **Appearance** Off-white, semisolid paste Off-white, semisolid paste **lodine Value** 50-58 44-52 Oxidative stability index (h, 110 °C) >180 >180

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