

## Organogels: Original Materials for Therapeutic and Dermo-Cosmetic Applications

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Nowadays, several therapeutic, cosmetic and dermo-cosmetic studies consider gelling agents to produce innovative face and body care formulations. Organogels are an interesting perspective because they possess the ability to confer hardness due to their fibrous structure, and to allow new organoleptic and physicochemical properties of the final product. These formulations are semi-solid systems, in which an organic liquid phase of cosmetic or dermo-cosmetic interest (soybean, almond, emollients, ...) is immobilized by a three dimensional network composed of self-assembled, intertwined gelator fibers. The most commonly employed organogelators in cosmetics are polymers, but these are not the only gelling agents used. Indeed, smaller molecules, Low Molecular-Mass Organic Gelators Organogelators (LMOGs),

may also present similar properties towards organic liquids. LMOGs are frequently used in cosmetology for their desirable physical organization properties within the oil phase or their capacity to jellify the organic liquids in smaller quantities (in the range 0.1– 10 wt%).

In this study, the concept of organogel preparation and characterization from vegetable oils and LMOG (1,3:2,4-Dibenzylidene sorbitol or DBS and 12-hydroxystearic acid or HSA) agreed for therapeutic, cosmetic and dermo-cosmetic applications, has been described and their physicochemical properties (mechanical strength, physical stability, phase transition temperatures, ...) have been investigated. The results show that the determination of LMOG proportion allows modulating the organogel properties. The use of LMOG is beneficial for the formulation consistency and texture, conferring good physical and chemical stability of the final product.

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