

## Novel formulation for maintaining the integrity of lipid vesicles (Peptosome)

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Modern skin care formulations contain liposomes – nano-spherical vesicles. Liposomes are the best delivery system for the controlled release of active and sensitive ingredients (e.g. vitamin C) into the deeper skin layers. Formulations with liposomes have been shown to release vitamin C ten times faster into the deeper skin layers, while protecting the vitamin C from oxidation and degradation. However, as soon as the packaging of such a formulation is opened, its contents are exposed to atmospheric oxygen and the ingredients, including the liposomes, oxidise and dry out. Our solution: PEPTOSOME extends the shelf-life of expensive liposome-based skin formulations by stabilising both, the liposomes and their contents.

The inspiration for PEPTOSOME lies in the ancient and remarkable phenomenon of resurrection plants. Part of this dehydration survival strategy based on specific, flexible proteins has been implemented in PEPTOSOME. As our invention PEPTOSOME is a formulation based on a flexible peptide structure, it circumvents the lack of selectivity of small molecules and provides better affinity and coverage. The safety and skin-beneficial function of the extracts of these proteins/peptides is proven. PEPTOSOME is completely innovative, cost-effective, easy to transport (at room temperature), eco-friendly, and contains no toxic chemicals. Our invention is also suitable for stabilising liposomes loaded with other skin-beneficial substances (anti-ageing agents, moisturisers, etc.), suitable for personalised care. Finally, LEAPOSOME can also be used with liposomes in the food industry, pharmacy, medicine and organic farming.