



Lichen Innovation

Nature's Resilience, Reimagined for Skincare

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In the harshest corners of the natural world, lichen quietly thrives. Anchored to rocks and tree bark, these inanimate organisms live with no discernible source of nutrition, exposed to the elements. Lichens are a remarkable partnership between photosynthesizing algae and fungi, living in perfect symbiosis. The fungi nourish, the algae protect, and together they produce lichen metabolites, potent natural molecules that help them survive extreme environmental stress. For decades, lichen metabolites have intrigued scientists due to their antimicrobial, antioxidant, anti-inflammatory, and cytoprotective properties. In ancient times, lichen was pressed into wounds to help the healing process and was used in European cultures for curative decoctions. More recently, lichen metabolites have been explored for potential therapeutic applications in neurode-

generative conditions like Parkinson's and Alzheimer's disease. These remarkable organisms harbour unique chemistries that scientists are still studying today. Eight years ago, Canadian company Europelab recognized the potential of lichen and launched an initiative to sustainably harvest native species from Canada's northern forests. Partnering with Indigenous communities who have long cared for the Canadian territories, a sustainable harvesting program was developed. Over the years, this collaboration has fostered friendship, trust, and meaningful personal relationships between Europelab and the native community. This mutually beneficial partnership is guided by a shared commitment to preserving Indigenous traditions and protecting local ecosystems.

From Forest Floor to Functional Skincare

Wild Canadian lichen species, *Cladonia stellaris* and *Cladonia rangiferina*, are blended with Triethyl citrate to create CosmosPreserve, the first product in Europelab's BioLichen series. CosmosPreserve is a multifunctional 100% natural active ingredient designed to offer formulators an alternative to synthetic preservatives in personal care products. CosmosPreserve was created to meet the growing demand for intentional beauty solutions. Not only is it effective, but this natural preservative system aligns with values of sustainability, transparency, and skin-conscious formulation.

“CosmosPreserve isn't just a product—it's the result of meaningful partnerships, long-term research, and a shared vision for more purposeful innovations.”

- Head of R&D and Innovation at Europelab

Sustainable Lichen Harvesting

The lichens found in CosmosPreserve are carefully collected from under the forest canopy in the Canadian north. While the lichen resource is abundant, harvesters are trained to use manual tools to trim only the top portion of the lichens. This sustainable practice ensures that the base remains intact and attached to its natural surface, allowing the lichen to continue growing and maintaining its vital role in the forest ecosystem. Europelab and its Indigenous partners have also launched a reforestation initiative, using dried lichen powder in measurable designated areas to reinoculate fire-affected forests. This seeding program is an effort that blends ecological restoration with scientific study. CosmosPreserve is more than a high-performance active, it's a case study in how science, sustainability, and community can come together to drive innovation in the beauty industry.



Why CosmosPreserve Stands Out

- Delivers broad-spectrum antimicrobial protection at just 1% concentration
- Offers antioxidant, anti-inflammatory, and cytoprotective benefits
- Thermostable, liposoluble, and effective in formulations with a pH range of 4-7.5
- A natural way to support product stability across a wide range of personal care products

“It's a partnership rooted in tradition and progress. We've worked with Elders, families, and students to build an ethical supply chain that benefits all involved.”

- Head of R&D and Innovation at Europelab

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