

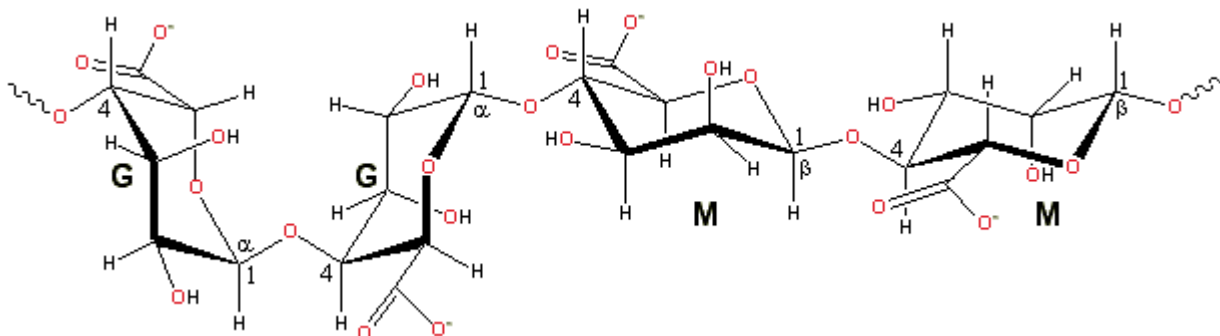
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Phyko-AC*



DESCRIPTION

Phyko-AC is a complex of an oligosaccharide (OGS) of marine origin and zinc. The oligosaccharide is obtained by controlled enzymatic depolymerization of membranous polysaccharides of laminaria digitata. It is formed by a chain of 2 uronic acids: mannuronic and guluronic.



The metal is chelated by adding zinc sulfate, and the OGS/metal ratio is optimized for maximum saturation.

PROPERTIES

Phyko-AC was tested in vitro and shown to reduce 5-Alpha Reductase activity. Phyko-AC also reduces *P. acnes*, *S. aureus* and *M. furfur* (a fungi also known as *P. ovale*). Therefore, it is a candidate for acne treatment and dandruff reduction. Phyko-AC was tested in vivo at 3% for 1 month on 15 volunteers. Results show a very visible improvement in skin appearance.

FORMULATION

Phyko-AC is a yellow to honey colored cloudy liquid with a characteristic odor and a slight precipitate. The suggested use level is 1% - 5%. Please note that Phyko-AC forms a precipitate with ethanol (>10%). It is recommended that Phyko-AC be added to the formula at the end of the manufacturing process, at less than 35° C. Phyko-AC is water soluble. ***Phyko-AC G is a Cosmos and Ecocert compliant version of this material. It contains glycerine and is preservative free. Please note that Phyko-AC G must be used at twice the concentration of Phyko-AC and therefore the suggested use level would be 2-10%. Safety and efficacy tests were run on Phyko-AC only.**

LEGISLATION

INCI Name: Water & Hydrolyzed Algin & Zinc Sulfate

CAS: 7732-18-5, 9005-32-7, 7446-20-0 EINECS: 231-791-2, 232-680-1, 231-793-3

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IN VIVO TEST: REDUCTION OF CUTANEOUS ERUPTIONS

An in vivo test was performed on 15 subjects for one month. A gel containing 3% Phyko-AC was applied 3 times daily for 30 days. The pictures below demonstrate the improvement in the skin's appearance.



Before Treatment



Skin treated with 3% Phyko-AC, 3X daily for one month

PHYKO-AC IS A SEBUM REGULATOR

Twelve volunteers with inflammation on the forehead were treated twice daily for 28 days with a placebo (gel only) and a gel containing 5% Phyko-AC. Measurements were taken on Day 1 with a sebumeter in 2 symmetric areas. After the treatment period, sebum levels were measured again on the 2 areas. Results were expressed by a variation in sebum level (in $\mu\text{g}/\text{cm}^2$) between Day 1 and Day 28. Results show a reduction in sebum levels for 67% of the volunteers, from -3 to -58 $\mu\text{g}/\text{cm}^2$. Observations were completed by subjective evaluation.

