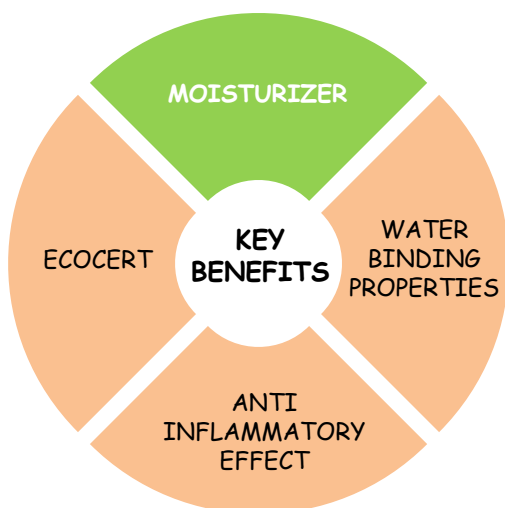


COMPOSITION	
INCI Name	APHANOTHECE SACRUM EXOPOLYSACCHARIDES



Chemical and physical properties

- High molecular weight water soluble polysaccharide extracted from Suizenji nori, a freshwater alga (cyonabacterium)
- Light green powder
- Molecular weight $\sim 1,6 \cdot 10^7$ Da

Formulation

- **pH:** stable over a pH range of 4 to 10
- **Heat:** stable
- **Salts:** compatible
- **Alcohols:** up to 50%
- **Surfactants:** compatible with SLES, decyl glucoside, sucrose laurate. Incompatible with polysorbate
- **Pigments:** compatible
- **Treated pigments:** compatible with all DAITO's treatments
- **Thickeners:** compatible with synthetic (carbomers or polyacrylates) and natural (xanthan gums and cellulose derivatives)
- **Film formers:** compatible with acrylic and cellulose derivatives

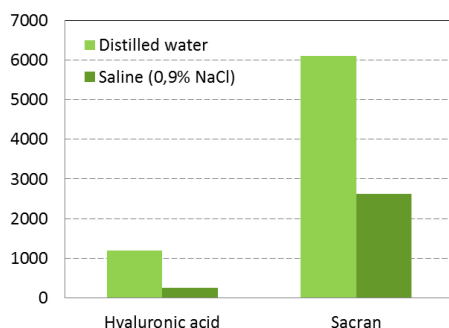
Use guideline

- Yields thixotropic gel
- Cold processable
- Incorporate slowly in water under stirring to avoid any lumps. Stir until the mixture is homogenous (more than 1 hour)
- A 0,5% sacran dispersion is available
- Use level: 0,05-0,5%

Cosmetic benefits

- Restores skin's elasticity properties, helps to moisture it and smoothes its surface
- May moderate the development of allergic dermatitis (anti-inflammatory effects)

Water retaining properties



Sacran is capable of retaining more than 6000 times its own weight of water.

Data show that compared to hyaluronic acid (Mw=150-180 kDa) sacran can retain 5 times more water.

The saline absorption efficiency of sacran decreased to about one-half of the value for water, but the value is still very high.

Safety and regulatory information

Safety: A study has shown that epicutaneous application of sacran, in diseased mice in a curative protocol, has significantly inhibited the development of allergic dermatitis skin lesions and reduced the number of scratching behavior episodes. Human studies indicate that sacran ameliorates the skin elasticity and skin hydration.

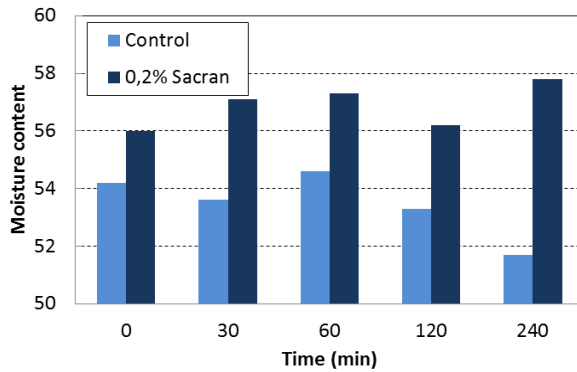
REACH: Aphanothece sacrum expolysaccharides is exempted from registration.

Aphanothece sacrum expolysaccharides is listed on the following chemical inventories: CTFA, CosIng and KCID.

In vivo efficacy study

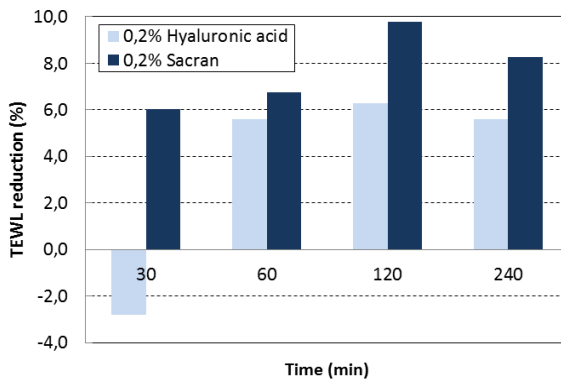
Asian female volunteers, aged between 35 to 60 years old, having dry skin, applied a formulation containing 0,2% of sacran.

Skin hydration: Corneometry



The application of the formulation containing sacran increases skin hydration

Transepidermal water loss



The figures demonstrate that sacran decreases the transepidermal loss more significantly than hyaluronic acid which is known to improve skin moisture and exert skin barrier repair activity. .

For additional information
Please contact:

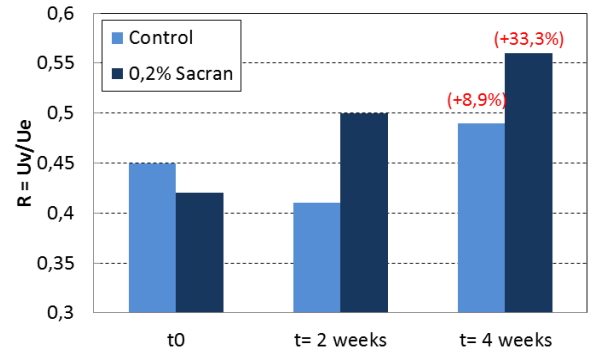
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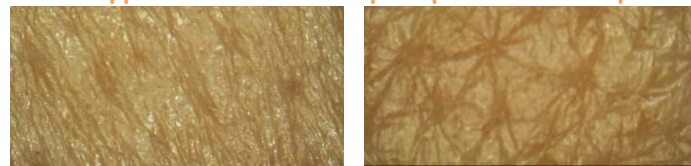
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Skin elasticity: Cutometry



Skin elasticity: a significant increase of more than 33% was detected in the area treated with the sacran formulation.

Skin appearance: microscopic epicutaneous aspect

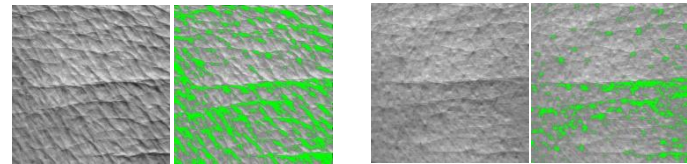


Before application

After 4 weeks of application

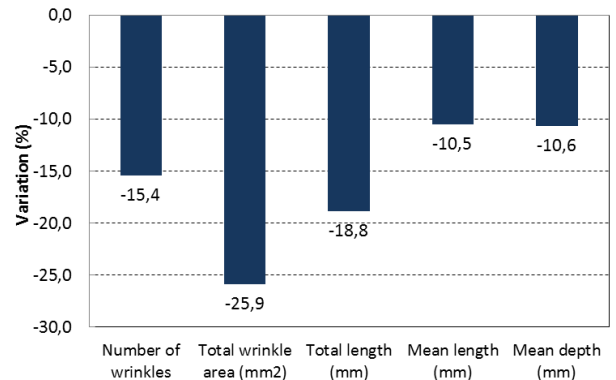
The application of sacran formulation significantly improves skin condition

Anti-wrinkle activity



Before application

After 4 weeks of application



Wrinkle evaluation was performed using silicone rubber replica with the quantiride system. There was a decrease in all measured parameters after 4 weeks of product usage. These results show the anti-wrinkle effect of sacran.