



100% natural and effective formulations are possible!

The thought of transitioning your brand to a more natural formulation or using more natural ingredients in new product development can be seem overwhelming. Yet it doesn't have to be, thank to Greentech, which offer key actives and extracts for 100 percent natural and effective formulations.

Nature is a source of molecules of interest for the cosmetics industry. Plants and microorganisms synthesise metabolites to defend against environmental aggressors and survive in hostile habitats. The R&D team at Greentech is inspired by these defense mechanisms and adapts them to the mechanisms of the skin. The company extracts and concentrates these assets from plants, algae, micro-algae or microorganisms to create natural actives.

Reverse visible signs of ageing

Reverskin is a powerful cellular booster. The active ingredient is ultra-concentrated in Phytoecdysterols, extracted from *Microsorium grossum*, one of the most frequently used fern species in Polynesian traditional

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medicine. It recreates the volume and the relief of a young skin through a double youth effect. Reverskin anchors the epidermis in the dermis and protects the fibrous network of the skin's matrix. Restructured, skin appears more elastic, suppler and firmer. Cutaneous relief is re-organised, wrinkles and fine lines are smoothed.

A 360° Photoprotector

Soliberine is sourced from *Buddleja officinalis* flowers, or the butterflybush, which grows in an area of the sacred mountains in Sichuan province where the average altitude is between 400 to 580m. Selected for its exceptional richness in phenylpropanoids, the purified fraction of flowers is highly concentrated in verbascoside and echinacoside. Soliberine acts against all damages induced by solar rays, including blue light, thanks to a dual power of protection and stimulation.

The multifunctional active preserves the youthful appearance of the skin, preventing inflammation, redness and premature ageing.

Positive ageing starts now

Hebelys is linked to the concept of well-ageing by sublimating the skin. By acting

on the key biological targets of senescence, it boosts the cutaneous architecture and maintains skin beauty, even after 60 years of age. Hebelys was developed in collaboration with Deinove sourced from *Sphingomonas hydrophobicum*. This microorganism has the capability to utilise a wide range of organic compounds and to grow and survive in a stressful environment. Hebelys embraces the beauty of maturity, targeting senescent cells and it has a psychological benefit.

The beauty of fermentation

Thanks to its multidisciplinary capacity, the Greentech Group uses fermentation to potentiate the properties of nature. Fermentation has several advantages:

- concentration of active compounds (AHAs and phenolic compounds)
- biotransformation of the components into active molecules of interest
- obtaining of new biological and functional properties (exfoliator, moisturiser and antioxidant)
- increased bioavailability of compounds.

For more than five years, Greentech has been offering highly active and innovative fermented extracts under the tradename, Ferment'Actives. These extracts and other

natural actives from Greentech are available in South Africa from Natchem.

Greentech uses this process to improve the concentration of AHAs, found especially in fruits, which are known for their regenerating properties. For example, the fermentation process increases the concentration of AHAs expressed in lactic

acid by 38 percent, such as those present in the raspberry for example.

Functionals to ease formulation challenges

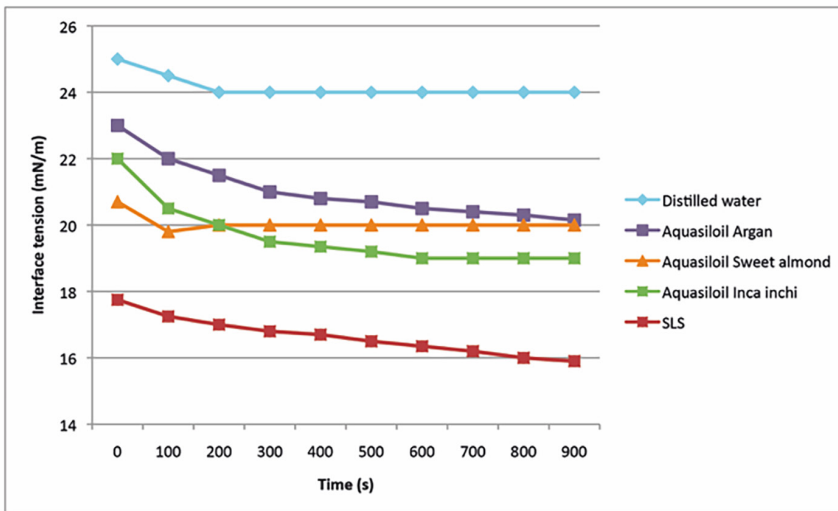
At this stage it's not completely possible to eliminate chemical surfactants from formulations. However, they can be limited,

especially those known to be irritating, thanks to a solution proposed by Greentech. The solution is Aquasil oils. These are water soluble oils based on an innovative alliance between lysine, essential amino acid and triglycerides of natural fatty acids derived from inca inchi, argan or sweet almond oils.

The water soluble oils have biological and technical benefits shown in Figure 1. When formulated in a micellar lotion, the oils offer cleansing and foaming benefits while preserving the skin by improving moisturisation.

Formulators can also decrease surfactant load in a formulation with Greensofts three in one actives. These simultaneously self-emulsifying fats for the oil phase and biological activity boosters are extremely sensorial, soft and silky to touch. Nutritional by essence, they provide the biological activities of their base vegetable oils, combined with the effectiveness of active molecules.

Figure 1: Interface tension of Aquasil oils measured with a Tracker automated drop tensiometer, showing the cleansing properties of the water soluble oils



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