



# SAPONIN+

*A plant powder with surfactant assets*



**FOAMING  
CLEANSING  
ANTIMICROBIAL**

**100% NATURAL  
100% PLANT ORIGIN  
100% UPCYCLING  
COSMOS COMPLIANT**

# SAPONIN+



*A plant powder with surfactant assets*

SAPONIN+ IS A PLANT POWDER COMING FROM TEA SEED OIL EXTRACTION. THANKS TO ITS SURFACTANT ASSETS, IT IS A PERFECT ALTERNATIVE INGREDIENTS TO FORMULATE COSMETIC PRODUCTS.

100% NATURAL, SAPONIN+ IS A BY-PRODUCT OF THE TEA SEEDS OIL EXTRACTION.

## AN ALTERNATIVE & UPCYCLED PLANT POWDER WITH SURFACTANT PROPERTIES

- + FOAMING
- + CLEANSING
- + ANTIMICROBIAL

Thanks to its properties, **SAPONIN+** can replace an usual surfactant to create a generous foaming effect, with cleaning and antimicrobial actions on cosmetic product formulation.

## FROM A BY-PRODUCT - TEA SEED MEAL

**SAPONIN+** is the residue of tea seeds after camellia oil extraction. Oil is processed by a cold press of *Camellia oleifera* seeds. Saponins of residue of camellia seed cake are extracted to obtain a dry extract that contains more than 60% of saponins.

- + 100% NATURAL
- + 100% PLANT ORIGIN
- + 100% UPCYCLED
- + COSMOS COMPLIANT

INCI : *Camellia oleifera* seed extract

## ANTIMICROBIAL ACTIVITY

The study from Hu et al., 2012 demonstrates saponins from *Camellia oleifera* seed cake showed significant **inhibitory activity against bacteria** *Staphylococcus aureus*, *E. coli*, *Bacillus subtilis* and the fungi *Saccharomyces cerevisiae*, *Penicillium glaucum*, *Mucor racemosus*, *Aspergillus oryzae* and *Rhizopus stolonifera*, with minimum inhibitory concentration (MIC) of 31.3-250 microgrammes/mL. **Their antimicrobial activities** at the dose of 1 mg/ml were closed to that of gentamicin (positive control **against bacteria**) and potassium sorbate (positive control **against fungi**). These saponins are more active against gram-negative bacteria than against gram-positive bacteria, due to the binding between saponins and lipopolysaccharide in the membrane.

Ref: Hu, J.L, Nie S.P, 2012, Antimicrobial activity of saponin rich fraction from *camellia oleifera* cake and its effect on cell viability of mouse macrophage. RAW 264.7 J. Sci. Food Agric. 92, 2443-2449.



## FOAM AND DETERGENT PROPERTIES

To compare SAPONIN+ foamability with a standard surfactant, we used a foaming height test measurement.

This test method is used to compare the SAPONIN+ foamability with a standard surfactant and the stability of the foam produced, based on height measurement.

Protocol: water solution of: 1% saponin+ ; 1% sodium acyl glutamate

Figure: Classical surfactant agent on the left. SAPONIN+ on the right.



Image: T0 - test tubes has just been shaken. Foam appears on both tubes



Image: After 10 minutes. Foam is still the same on SAPONIN+ test tube while foam disappears on classical surfactant agent tube

Conclusion :

Upcycled plant extract SAPONIN+ is comparable with usual surfactant on foaming properties.



Images: Hands washing with SAPONIN+ only. The powder metamorphoses in a foaming texture with water.



## FORMULATION GUIDE

SAPONIN+ can be used in many cosmetic formulation as an anionic surfactant.

- + CLEANSER IN POWDER
- + MICELLAR WATER
- + SHOWER GEL
- + SHAMPOO
- + CLEANING PASTE
- + TOOTHPASTE
- + MOUTH WASH

DISCOVER OUR FORMULATION GUIDE



## TECHNICAL DATAS

Shelf-life	36 months
Appearance	Powder
Color	Beige
Odor	Characteristic
Saponin content	> 60%
Package	10 kg
Reference	F370

# A TRUE SUSTAINABLE COMMITMENT ROOTED IN OUR DNA

Since 2002, we have always designed and manufactured cosmetic solutions with a global sustainable approach. It is in our DNA to offer products which have been carefully produced. We are daily engaged to reduce our environmental impact and stimulate circular economy. We offer a global sustainable approach because we are committed to respect environment and human well-being, not because it is trendy.



## 4 CSR ISSUES



### ACT TO IMPROVE LOCAL & SOCIAL DYNAMICS

- Ensure a local employment strategy
- Encourage professional integration
- Support local initiatives



### ACT FOR OUR COLLABORATOR'S FULFILLMENT

- Guarantee security & safety at work
- Create a pleasant living & working environment
- Develop & encourage professional and personal fulfillment



### ACT TO PROTECT ENVIRONMENT

- Develop an innovative offer with a global sustainable approach
- Include solutions for energy saving
- Encourage circular economy
- Reduce, recycle & upcycle wastes



### ACT FOR A RESPONSIBLE PRODUCTION

- Guarantee products quality & safety
- Reinforce partnership with suppliers
- Enhance responsible purchasing

## A GLOBAL SUSTAINABLE APPROACH REWARDED



- **LABELLED ECOVADIS IN 2019**  
FOR OUR CSR POLICY
- **GOLD GREEN AWARD IN 2018**  
FOR OUR ACTIVE INGREDIENT FUCOREVERSE
- **BEST EMPLOYER IN 2018 IN OUR AREA**  
FOR OUR RECRUITMENT POLICY
- **BRONZE GREEN AWARD IN 2015**  
FOR OUR ACTIVE INGREDIENT CELLULOSCRUB



CROAS AR NEIZIC 29800 SAINT-THONAN • FRANCE  
 TEL: +33 02 98 07 23 65  
 www.lessonia.com • info@lessonia.com