

Active Ingredients



EquiScalp: The microbiota-friendly scalp soother

SOOTHING SENSITIVE SCALPS

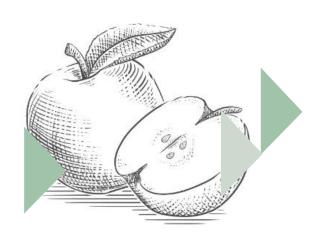
- Histamine release ↓
- Irritation mediator IL-1Ra ↓
- Antimicrobial peptide S100A8/9 ↓

KEY CONSUMER BENEFITS

Scalp desquamation: -20.4%

Scalp sebum output: -20.4%

Friendly to scalp microbiota



ENVIRONMENTAL ADVANTAGES

 Plant stem cell technology using Fuji apple

Few plant resources needed



Active Ingredients

Scalp care: a health concern?

40% of population¹ reports it is suffering from scalp sensitivity

75-85% of women² agree that scalp care can improve hair condition

18%
of haircare launches in
Europe (2019)²
made reference to scalp care

¹ Sensitive scalp: does this condition exist? An epidemiological study.

² Mintel – A Year of Innovation in Haircare 2019

Active Ingredients

The scalp is an integral part of physical beauty

- Scalp and hair are continuously exposed to many stressors, such as pollution, UV light, seasonal changes and chemicals (hair dyes, hair treatments)
- Strong link between hair and scalp
- ► Hair health depends on the scalp: if scalp health is compromised, it can lead to greasy and dull hair

Consumers are looking for solutions that protect their scalp:

To feel better

To feel less impacted by stress

► To boost their self-confidence



CLARIANT Active Ingredients

The scalp: a natural stress barometer

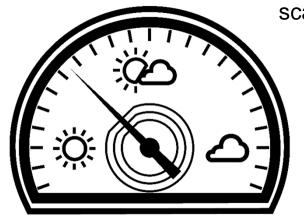
The scalp is one of the most sensitive barometers for physiological and psychological stress

Flakes and desquamation

- Stress usually triggers and worsens scalp flaking
- Flaking can cause hair loss

Oiliness

Stress increases the scalp's sebum production



Redness and itchiness

Irritation may result in scratching, adding to scalp redness

An irritated scalp can greatly impact the quality of life and self-confidence of those affected

Main symptoms and consequences

Active Ingredients

HEALTHY SCALP

- Balanced and comfortable scalp
- Irritation-free surface
- Natural desquamation renews skin
- Healthy community of microbiota
- Effective barrier against aggressors

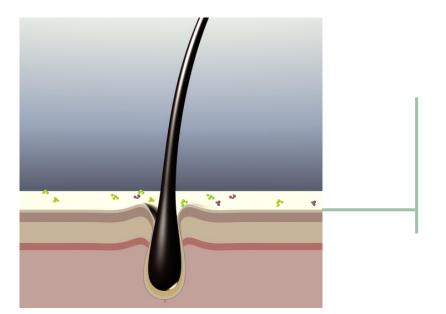
UNBALANCED SCALP Greasy scalp, excess of sebum Itchy and tight Flaky Uncomfortable Disturbed microbiota Damaged barrier, more vulnerable to stress

Environmental stress levels ↑

CLARIANT Active Ingredients

Scalp microbiota

- ► Microbiota are microorganisms (bacteria, fungi, yeasts) that live in or on the human body
 - → The scalp has its own microbiota, which play a role in its homeostasis and protection



Microorganisms

- ► 100,000–150,000 hair follicles provide biotic niches
- Most abundant bacteria on normal scalp are Cutibacterium and Staphylococcus = indicators of a healthy scalp
- Microorganisms use sebum and squames as food excessive availability can unbalance scalp

Sources:

The role of the microbiome in scalp hair follicle biology and disease

Active Ingredients

Why does the scalp become sensitive?



Itching and redness



Disturbed scalp microbiota can increase scalp issues

Irritation process

Scalp desquamation and flaking

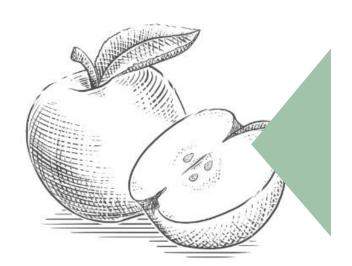
Sebum production





Active Ingredients

Stem cells from Fuji apple



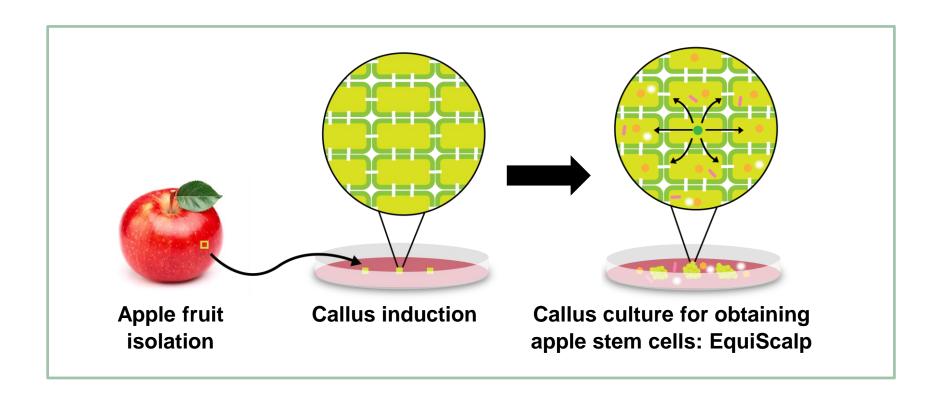
- Plant stem cell technology, using the Fuji apple Malus domestica
- Apple: a symbol of eternal youth and immortality
- Rich in **phloridzin**, a flavonoid with anti-inflammatory, anti-lipogenesis, and barrier-improving activities*



^{*} Source: Purified Phlorizin from Docynla Indica (Wall.)

Active Ingredients

Plant stem cells: an environmentally responsible solution



- Small piece of plant tissue sufficient for obtaining sustainable and renewable raw material
- Preservation of plant resources, traceability, no use of cultural land, ecological cultivation





Active Ingredients





Controlling irritation, the root cause of scalp sensitivity

Active Ingredients



EquiScalp at 2% versus placebo after 28 days

Tested on 2 groups of 20 volunteers (+/- 46) selected for their scalp sensitivity

Participants washed their hair with shampoo formulation 2–3 times a week



Reduction of inflammation

Histamine release: -54%*

Irritation mediator IL-1Ra: **-27%**

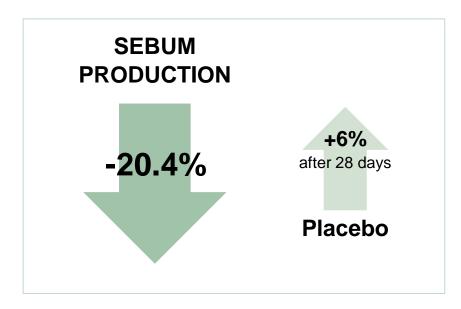
Antimicrobial peptide S100A8/9: **-45.6%**

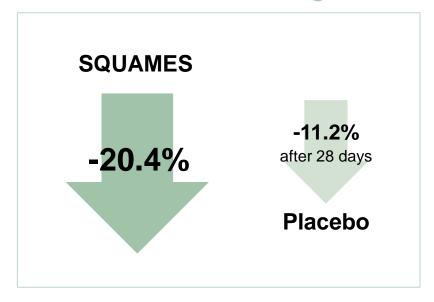
^{*} in vitro test performed on mast cells, EquiScalp at 0.02%

Active Ingredients

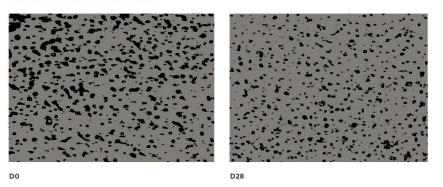
Improvement of scalp health

2





SEBUTAPE SAMPLINGS - VOLUNTEER NO



C-CUBE PICTURE - VOLUNTEER N°12





D

Active Ingredients

Preserving the scalp's microbiome

- ► The scalp's microbiota supports its homeostasis and protection
- ► The most abundant bacteria on a normal scalp are *Cutibacterium* and *Staphylococcus* → an active ingredient should not dysregulate the normal composition of the microbiome
- Maintaining the scalp bacterial microbiota density and precisely living microbiome is important to maintain healthy scalp

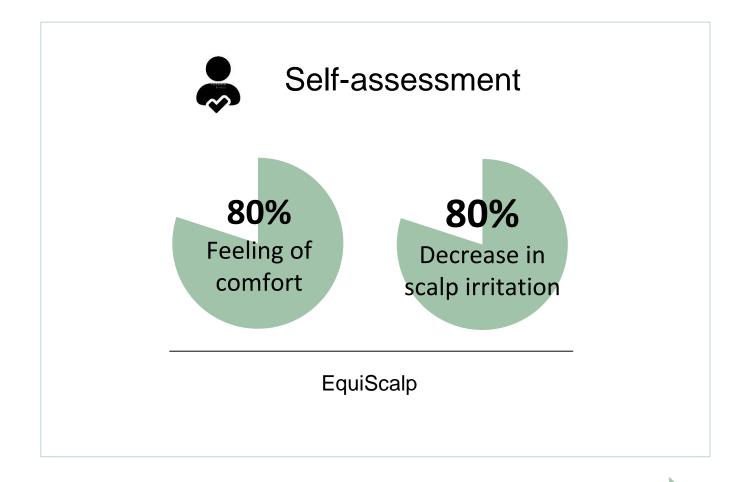
TOTAL POPULATION OF

No change after 28 days

SCALP BACTERIA SPECIES

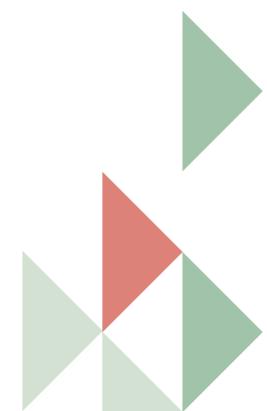
Normal population of Cutibacterium and Staphylococcus is preserved

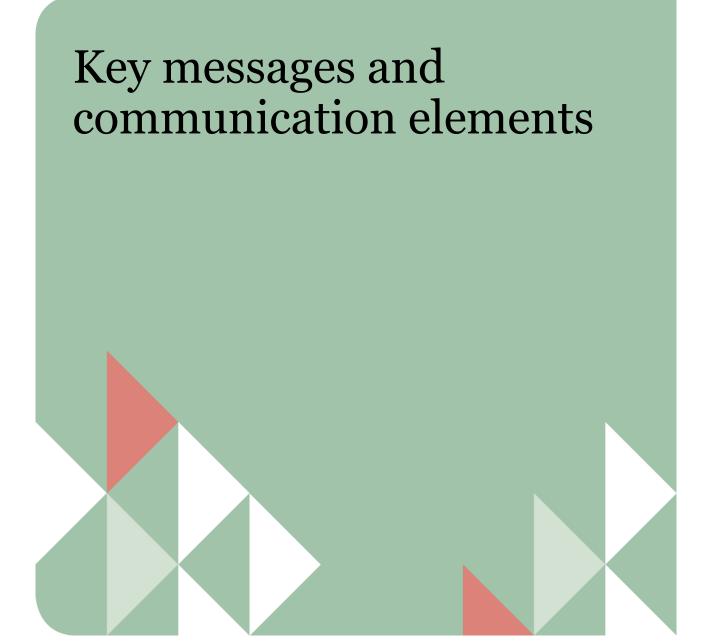
Self-evaluation after 28 days





Active Ingredients







Active Ingredients

what is precious to you?

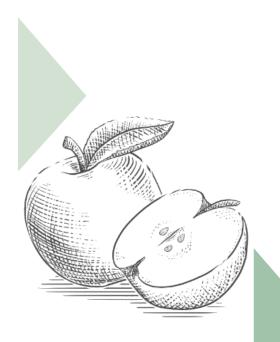
CLARIANT Active

Ingredients

Key facts

Apple stem cells rich in phloridzin

Decreases scalp **sebum**, **redness and desquamation**



Environmentally mindful active from plant stem cell technology

Preserves healthy scalp microbiome without sacrificing visible damage reduction

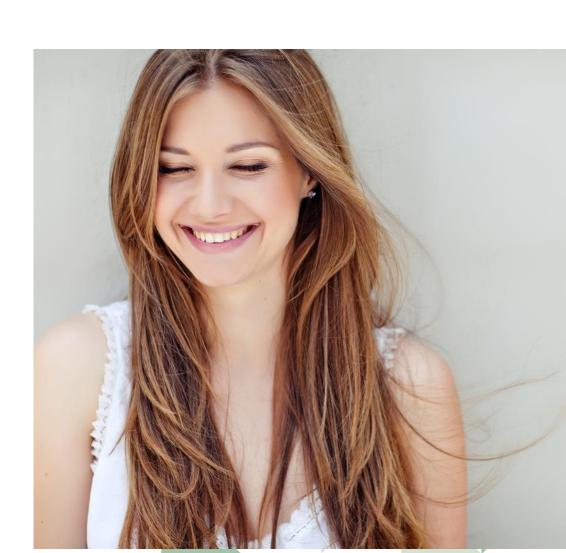
Tested in **rinse-off** product

Active Ingredients

Suggested claims and applications

- Reduces scalp discomfort
- Soothes sensitive and irritated scalps
- Controls scalp inflammation
- Modulates sebum production
- Reduces flaking
- Improves the scalp's barrier function
- Relieves scalp itchiness
- Preserves scalp microbiota
- Prevents redness
- Supports hair beauty and health

For hair care, serums, shampoos, masks, toners and much more



Active Ingredients

Communication of beauty benefits

The concept: Soothing sensitive scalps

- Beauty users gain new confidence
- Homeostasis of the scalp's ecosystem is restored
- Hair health starts with the scalp
- Pre-shampoo care for sensitive or oily scalps
- Plant-based protection booster for the scalp





Thank you for your attention

CLARIANT PRODUCTION (FRANCE)
BU INDUSTRIAL & CONSUMER SPECIALTIES
195 Route d'Espagne
31036 Toulouse Cedex 1
France

Sales & Marketing marketing-ai@clariant.com Phone: + 33 5 82 08 28 32

www.clariant.com



CLARIANT Active Ingredients

Disclaimer

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Clariant makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Clariant's products for its particular application. *Nothing included in this information waives any of Clariant's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change.

Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

*For sales to customers located within the United
States and Canada the following applies in addition

NO EXPRESS OR IMPLIED WARRANTY IS MADE OF THE MERCHANTABILITY, SUITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE OF ANY PRODUCT OR SERVICE.





- © 2020 Clariant International Ltd, Rothausstrasse 61, 4132 Muttenz, Switzerland
- ® Product and service marks protected by Clariant in many countries