



# Itchy, irritated scalp? You're not alone.

Scalp well-being is a growing worldwide concern for all ethnicities. Many factors cause damage to the outer layer of skin, including keratin treatments, coloring, heat styling, sun exposure, stress, and environmental elements. In addition to these factors, other trends have impacted our scalp's well-being.

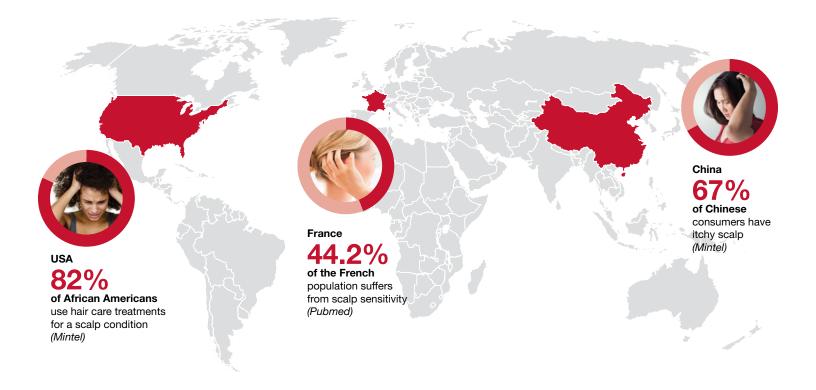
With an ever-growing emphasis on healthy living, we see more changes in daily behaviors. One example: we're washing our hair less often, allowing for natural oils to build up on the scalp. While this can be viewed as a positive, it causes increased complaints of itchiness to the scalp. On the other hand, washing our hair too often can also cause irritation. Many of us struggle to find the right balance.

How does the weather impact the dryness of my scalp? It's important to consider heat and sun exposure in the summer, and outdoor cooler air in the winter. What about when we're sitting indoors? Artificial cool air conditioning in the summer and forced heat in the winter can influence scalp health.

While many of us are embracing a more natural look, there are still plenty of us who choose to heat-style or chemically treat our hair. This can result in further irritation to the scalp and a need for solutions to help calm and alleviate scalp itchiness, dryness, and overall negative impact to our scalp barrier.

Luckily, BASF offers soothing remedies for the scalp.

Heat Climate Pollution Hair Dye Aging Shampoo Wind Over-Washing Ultraviolet Radiation Hair Straightening CO<sub>2</sub> Stress Drugs Hair Treatment Emotive Factors



## **Causes and Consequences**

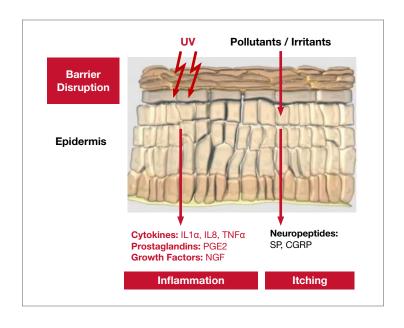
**Oily hair** is characterized by an over production of sebum, leading to greasy and heavy hair, lack of volume, dandruff, irritation and itching.

**Dandruff** is an inflammatory scalp disorder resulting in a disruption of cohesion between the corneocytes. This leads to an excessive flaking of dead skin cells from the scalp.

**Dry scalp** is characterized by an over production of sebum, leading to dry and dull hair, irritation and itching.

**Itchy scalp** is a result of various hair treatments or due to scalp sensitivity, dandruff, or scalp dryness.

**Scalp irritation** is a result of various hair treatments or due to scalp sensitivity, dandruff, or scalp dryness.



# New ritual. Take daily care of your scalp & hair as you do for your skin.

Transpose daily skin care rituals to hair! More and more products claim cleansing, detoxifying and exfoliating action on the scalp while nourishing and moisturizing the hair. (Mintel)



CLEANSE SHAMPOO 2-IN-1 SHAMPOO CONDITIONER MASK SCRUB



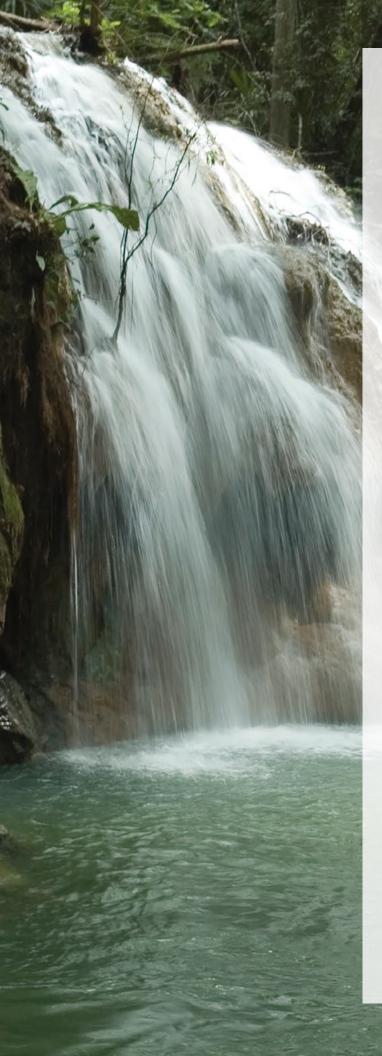
RINSE VINEGAR RINSE



LEAVE-ON UV PROTECTION HEAT PROTECTOR SERUM



DAILY CARE NIGHT CREAM DAY CREAM

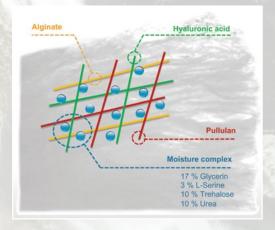


## PatcH20®

## The Hydra-protect technology

PatcH2O is a molecular patch based on film-forming natural bio-polymers (hyaluronic acid, alginate and pullulan) carrying highly concentrated hydrating substances (trehalose, glycerin, urea and L-serine). *In vitro* tests demonstrate that PatcH2O provides immediate and long-term sustained scalp moisturization, as well as many other benefits to the scalp and hair.

PatcH2O: Highly organized 3D structure



"Contributes to a quick and long-lasting hydration of the scalp." [2]

"Restores the hair surface by up to 80%." [5]

"Helps to soothe an itchy scalp."[2] "Two hours after treatment, damaged hair is almost fully rehydrated."[5] "Forms a protective film around the hair." [5]

"AquaGuard."[1]

"Contains 4 of the best humectants in a 3D active ingredient reservoir made of natural raw materials."[1]

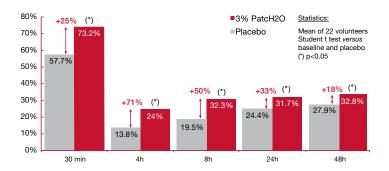
[1] Ingredients/story [2] Study on hair/scalp / [3] In tubo results / [4] In vitro results / [5] Study on hair

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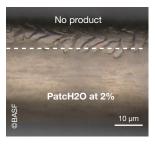
**INCI:** Water (and) Glycerin (and) Glyceryl Polyacrylate (and) Trehalose (and) Urea (and) Serine (and) Pentylene Glycol (and) Algin (and) Caprylyl Glycol (and) Sodium Hyaluronate (and) Pullulan (and) Disodium Phosphate (and) Potassium Phosphate

#### Immediate and long-term moisturization

% Improvement in hydration vs. pre-treatment



#### Film-forming effect on hair surface





PatcH2O creates a bio-barrier on the surface of damaged hair to help protect it from the effects of heat styling and treatments.

#### Clinical study design



#### **Test Methods:**

**Volunteer panel:** 65 Caucasian/African American/Hispanic/Asian female volunteers from 18 to 65 years old with self-perceived itchy/uncomfortable and dry scalp (SKICON <50  $\mu$ s & dry hair)

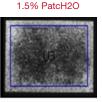
Test products: PatcH2O at 2% Placebo serum Application: Daily application, Whole scalp Measure: Baseline, 4 hrs, 21 days and 24 days Measurements: SKICON; Subjective questionnaires

#### 2nd skin effect against pollutants

Vitro-skin® membrane after pollution by charcoal particles



Water









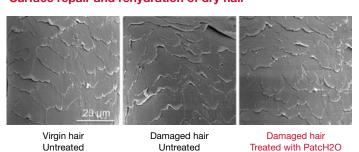
Statistics: Mean ± SD; n=8 Student t test vs. Water control (\*\*) p<0.01



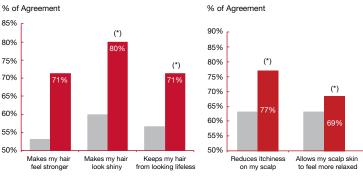
## Scalp Hydration (SKICON)



#### Surface repair and rehydration of dry hair



#### Volunteer Panel Evaluations





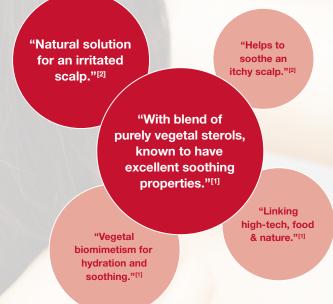
# **Phytosoothe®**

## Vegetal biomimetism for soothing hydration

Phytosoothe is made of rapeseed phytosterols solubilized in fatty alcohol (cetearyl alcohol). In addition to soothing and reducing scalp irritation, it also smooths hair and improves manageability for a more beautiful hair appearance.

**Biological concept:** Phytosterols normally melt at high temperature (>70°C). Phytosoothe makes the formulation of phytosterols easier by significantly lowering the melting point of phytosterol.





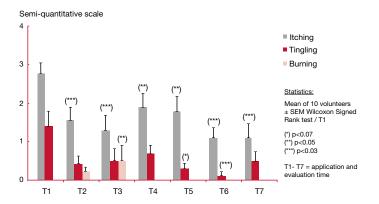
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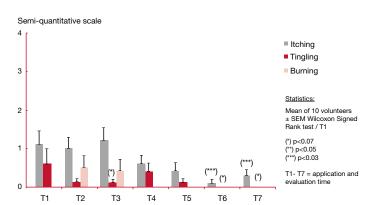
#### Improvement of clinical symptoms on the scalp

Phytosoothe reduces scalp irritation. The effects of Phytosoothe are immediate and long-lasting, and best felt after the first treatment.

#### Evaluation of symptoms before product application



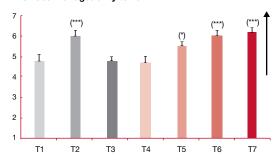
#### Evaluation of symptoms after product application



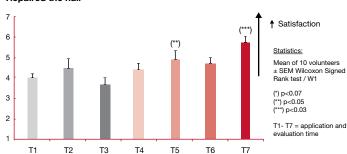
#### Consumer perceivable benefits

The consumers' positive appreciation of Phytosoothe increased with the duration of the treatment. After a total of 7 treatments the volunteers felt that hair was significantly repaired, more manageable, smoother and more beautiful.

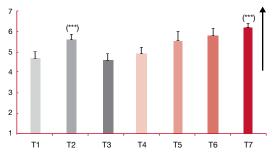
#### Provided manageability to hair



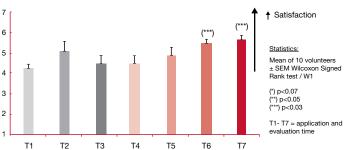
#### Repaired the hair



#### Provided smoothness to hair



#### Made the hair more beautiful





# Sanicapyl®

## **Natural complex**

Sanicapyl is an optimized natural complex made from an extract of *Piper Nigrum* berries (black pepper), *Inga Alba* bark extract and Sodium Lauroyl Lactylate. It provides anti-inflammatory and soothing benefits to the scalp as well as mositurizing and cleansing properties, and helps in the treatment of skin damage.

**Biological concept:** Rich in polyphenols and catechic tannins, *Inga Alba* bark is harvested from the French Guyana rainforest. The bark is ground, extracted and standardized. Indigenous people have traditionally used the *Inga Alba* bark for body massages and to cure damaged skin.





"Reduces sebum production." [5]

"Soothes the scalp." [5]

"Provides softness of wet hair." [5]

"Provides long-lasting moisturization." [4]

[1] Ingredients/story [2] Study on hair/scalp / [3] In tubo results / [4] In vitro results / [5] Study on hair

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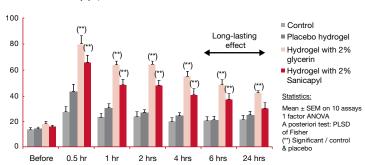
**INCI:** Sodium Lauroyl Lactylate (and) Butylene Glycol (and) Piper Nigrum (Pepper) Fruit Extract (and) Inga Alba Bark Extract

#### Long-lasting moisturization

The moisturizing efficacy of Sanicapyl on the stratum corneum aids in the regulation of desquamation and preservation of the cutaneous barrier function.

#### Moisturizing activity on human horny layer in vitro

Dielectric conductivity (µS)

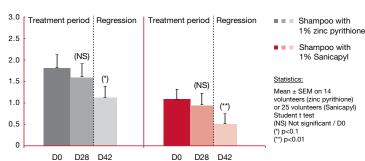


#### **Reduction of sebum**

Shampoo treatment with 1% Sanicapyl demonstrates a significant decrease in sebum secretion when compared to treatment with 1% zinc pyrithione.

#### Sebum secretion: Sebufix® scoring by trained panelists

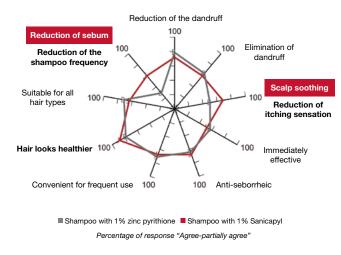
Sebufix® scoring at D0, D28 and D42



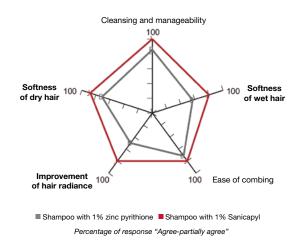
#### Consumer perceivable and visible benefits

After washing with a shampoo treatment containing Sanicapyl 3 times per week over 28 days, volunteers with dry or greasy dandruff experienced a significant improvement in scalp and hair properties. This improvement was also maintained 14 days after discontinued use of the treatment shampoo.

#### Scalp health properties



#### Hair beauty and feel





Itchy, irritated scalp?...BASF has the right solutions to help soothe and alleviate discomfort.

Notes	



#### **About BASF's Care Chemicals division**

The BASF division Care Chemicals offers a broad range of ingredients for personal care, hygiene, home care, industrial & institutional cleaning, and technical applications. We are the global leading supplier for the cosmetics industry as well as the detergents and cleaners industry and support our customers with innovative and sustainable products, solutions and concepts. The division's high-performance product portfolio includes surfactants, emulsifiers, polymers, emollients, chelating agents, cosmetic active ingredients and UV filters. Superabsorbent polymers developed for the full spectrum of hygiene applications complete the range. We have production and development sites in all regions and are expanding our presence in emerging markets.

Further information is available on the internet at www.care-chemicals.basf.com.

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