

News Release

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Sacred Patch®: BASF launches new skin care active ingredient that helps boost emotional well-being

- **BASF researchers harness the potential of the precious Japanese algal extract sacran.**
- **Sacred Patch® demonstrates outstanding moisturization results, soothes sensitive skin, and helps to stimulate the release of the wellness mediator oxytocin.**
- **Based on the MicroPatch® technology, the product provides a positive emotional effect immediately after application.**

Pulnoy, France, April 7 2021 – In an increasingly hectic world, promoting mental health has become the top priority for many consumers. With its innovative Sacred Patch®, BASF can help manufacturers to develop effective skin care products that promote emotional well-being while addressing common signs of sensitive skin. Sacred Patch is based on BASF's MicroPatch® technology to harness the potential of the valuable algal extract sacran. Sacred Patch works in three ways: it offers an instantly perceptible uplift in mood once applied to the skin, helps to soothe sensitive skin, and provides strong moisturization properties. According to ISO 16128, Sacred Patch is 99.2% of natural origin.

Smart patch technology for mood-targeted beauty

Extracted from the Japanese microalga *Aphanothece sacrum*, sacran has long been known for its soothing properties. BASF scientists have now discovered that the polysaccharide also helps to stimulate the release of oxytocin, a neuropeptide and wellness mediator. Taking advantage of this exceptional property, sacran has been

integrated into a MicroPatch, consisting of the natural bio-polysaccharides pullulan, alginate, and hyaluronic acid, to form Sacred Patch.

The active ingredient has been shown *ex vivo* to help stimulate the release of oxytocin in human skin explants by as much as 40%. Comprehensive *in vivo* testing confirmed that the molecular patch had a positive emotional effect immediately after application: 93% of the volunteers associated the use of Sacred Patch with tenderness, 90% with joy and happiness, and 61% with desire.

Soothing sensitive skin

Sensitive skin is an overreaction to external stimuli such as irritants or microorganisms, and can be exacerbated if unwanted invaders manage to penetrate the skin. Once inside, the irritants cause the epidermal cells to produce inflammatory messengers such as interleukin IL-8. In an *in vitro* test conducted on human keratinocytes infected by *Staphylococcus aureus*, Sacred Patch was shown to help significantly reduce inflammation by 93% compared to an untreated control. The active thus demonstrably helps to comfort irritated skin.

Immediate and intense moisturization

Disruptions within the skin barrier can lead to dehydration, contributing to a variety of unwanted skin conditions including discomfort, fine lines and wrinkles, and dull, flaky skin. BASF's MicroPatch product forms a protective, comforting mesh on the surface of sensitive skin to prevent water evaporation. What's more, Sacran – entrapped in the patch – has impressive water-attracting properties. It therefore helps to increase the skin's natural water retention capacity, keeping it hydrated. Tested *ex vivo* on human skin biopsies, Sacred Patch has been proven to offer immediate moisturization of the upper layers of the epidermis, lasting until at least 6 hours after application. Clinical tests confirmed this result: study participants rated the moisturizing and soothing effect of an emulsion containing Sacred Patch at 2% with a score of at least four out of five after eight hours and 14 days of application.

The patch technology is a result of the company's dual expertise in natural macromolecules and the controlled release of active ingredients. It forms the basis for a range of products in BASF's active ingredients portfolio, including PatchH2O™ that offers immediate and long-lasting hydration for skin scalp, MicroPatch® Caffeine that helps to improve cellulite and decrease dark circles under the eyes, and the

moisturizing MicroPatch® Serine. BASF plans to further expand its product range based on the MicroPatch technology in the future.

About the Care Chemicals division at BASF

The BASF division Care Chemicals offers a broad range of ingredients for personal care, home care, industrial & institutional cleaning, and technical applications. We are a leading global 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. We have production and development sites in all regions and are expanding our presence in emerging markets. Further information is available online at www.care-chemicals.basf.com.

About BASF

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