

16932.

ACB Rice Water SF

PROTEINS



VEGAN



COSMOS



EX VIVO



CHINA



ISO 16128



THE FEATURES.

ACB Rice Water SF represents a revolutionary leap in cosmetic science, harnessing the power of fermentation to amplify the benefits of traditional rice water. Repurposing rice water, a natural byproduct from rice production, promotes sustainability by minimizing waste and lowering environmental impact while delivering natural benefits for skin and hair. Rice water can boost hair health by enhancing hydration and providing hair humidity protection in both bleached and virgin hair. Incorporating rice water into your skincare routine can unlock a natural, gentle solution for smoother and healthier-looking skin, proving that sometimes the simplest ingredients are the most effective. Discover the transformative power of ACB Rice Water SF — an ancient beauty secret redefined with modern science to deliver radiant skin and lustrous hair, all while nourishing and revitalizing with every application.

Oryza Sativa (Rice) Seed Water & Saccharomyces Ferment & Lactobacillus Ferment

Actions

**Moisture Retaining
Humidity Protection
Nourishing
Conditioning**

TECHNICAL DATA SHEET.

THE REGULATION.

INCI. Oryza Sativa (Rice) Seed Water & Saccharomyces Ferment & Lactobacillus Ferment
CAS. 68553-81-1 & 8013-01-2 & 68333-16-4 (or) 1686112-36-6
EINECS. 271-397-8 & 232-387-9 & N/A (or) N/A
EUROPE. Compliant
USA. Compliant
CHINA. Compliant

THE SPECIFICATION.

Origin. Botanical/Yeast/Bacteria
Natural Antimicrobial. Lactobacillus Ferment
Preservatives. None
Solvents Used. None
Soluble/Miscible. Water Soluble
Appearance. Hazy Liquid, Colorless to Yellow
Use Level. 1- 10 %



THE STORY.

Rice, or *Oryza sativa*, is more than just a staple food, it's a vital lifeline for billions, sustaining cultures and economies across the globe, especially in Asia, with its beneficial simplicity and endless versatility. Rice is normally cooked by simmering it in water until the grains become tender and absorb the water, resulting in a fluffy and flavorful dish. However, before being cooked, rice should be rinsed with water to remove any debris or excess starch. Excess water accumulated during this process is typically discarded, but this nutritious would-be waste can be repurposed to deliver nourishment to both the hair and the skin.

The Southern Chinese village of Huangluo, renowned as the "world's longest hair village" according to the Guinness Book of Records, is home to the native Red Yao women, who are celebrated for their remarkably long, lustrous, and well-maintained hair.¹ The villagers consider long hair as a symbol of luck and longevity. The secret behind their stunningly healthy hair may lie in a traditional yet simple Chinese remedy: rice water. Although rice water is primarily known for its use in hair care, there is potential to extend its benefits to skin care by. Around 1200 years ago, women in Japan used rice water to wash their face and named the rice water "Yu-Su-Ru".¹ Geishas, who are well-known for their beautiful complexions, used Yu-Su-Ru to maintain a smooth, supple, and even skin tone. Packed with vitamins and minerals, rice water can be incorporated into skin care routines to revitalize the skin and leave behind a flawless, radiant glow.

Unlock the timeless beauty secret with ACB Rice Water SF: Nature's nourishing ingredient that revitalizes and rejuvenates the skin, leaving it refreshed and renewed.

THE SCIENCE.

Rice grains are known to contain phytochemicals such as flavonoids, phenols, tannins, sterols, tocopherols, γ-oryzanol, and amino acids.¹ These bioactive components have been found to possess antioxidant, anti-aging, and anti-inflammatory properties that can be applied to both skin care and hair care applications.

When the skin and hair are exposed to ultraviolet radiation and environmental stressors, reactive oxygen species can accumulate on the surface and cause cellular damage. To provide protection from unnecessary damage, it is important to supplement the body's innate system with antioxidants that can act to scavenge free radicals and reactive oxygen species and reduce oxidative stress. A study was done to analyze the ability of rice water to reduce the synthesis of reactive oxygen species induced by a chemical compound and ultraviolet radiation in human keratinocytes. The results indicated that rice water reduced reactive oxygen species by 80% compared to a control and ascorbic acid (Vitamin C), a common antioxidant.² It is believed that the antioxidant activity of rice water can be attributed to the phenolic bioactive compounds that make up rice grains.

Additionally, rice water has been found to help maintain hydration in the skin and hair. Research has shown that applying a topical cosmetic that contains rice water can help to increase skin hydration by 10% compared to baseline values.² In hair care applications, rice water has been found to reduce surface friction, increase hair elasticity, and promote healthy hair growth.³ Dehydration of the hair and skin can cause dryness and irritation, so incorporating hydrating ingredients in cosmetic ingredients is crucial to maintaining healthy moisture.

The use of biofermentation methods provides a means of obtaining enhanced cosmetic ingredients that possess additional beneficial compounds with improved bioavailability and increased biological effectiveness.⁴ To create ACB Rice Water SF, rice water is fermented with *Saccharomyces cerevisiae* which helps enhance this ingredient's biocompatibility with the skin.

THE BENEFITS.

Hair

Moisture Retention *Hair Hydration via Gravimetric Analysis*

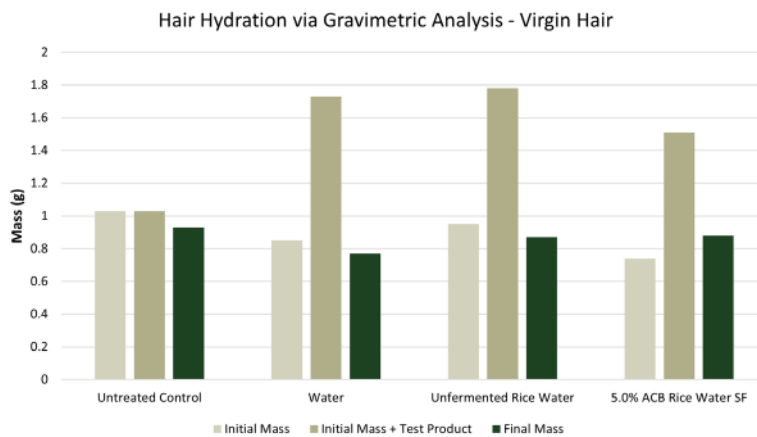
Anti-Humidity *Humidity Protection Analysis*



THE EFFICACY.

Hair Hydration via Gravimetric Analysis

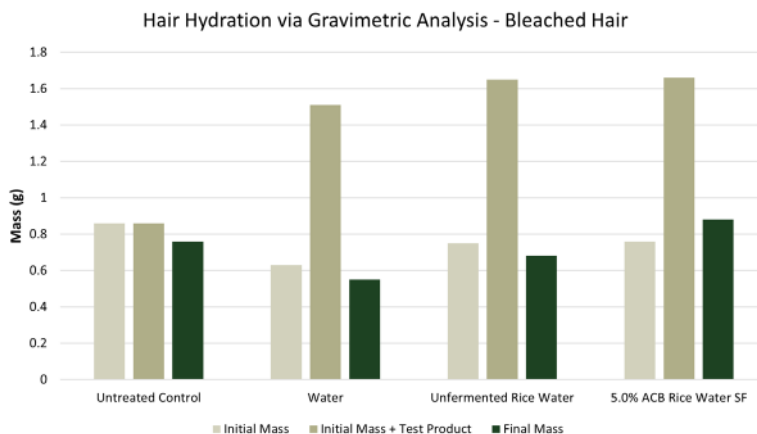
A gravimetric analysis was performed on virgin hair and bleached hair swatches in order to assess the hydrating ability of ACB Rice Water SF on the hair. Four bleached and four virgin hair swatches were collected, weighed, and then treated with 5.0% ACB Rice Water SF, unfermented rice water, water alone, or left as an untreated control. After treatment, hair swatches were weighed again, and then placed into a constant temperature-drying oven for 1 hour at 105°C. When removed from the oven, hair was given time to cool in a humidity-controlled chamber, and then weighed. Hair hydration was determined by calculating the percent moisture per hair swatch.



Retained 9.3% moisture in virgin hair swatches compared to untreated virgin swatches. (at 5.0%)

Moisture Retaining.

Enhances Hydration & Promotes appearance of healthy hair



Retained 7.2% moisture in bleached hair swatches compared to untreated bleached swatches. (at 5.0%)

Locks in hydration.

Enhances moisturization & Safe for Bleached Hair

Humidity Protection Analysis

A Humidity Protection Analysis was performed to qualitatively assess the humidity protection capabilities of ACB Rice Water SF on the hair. Four bleached and four virgin hair swatches were collected and treated with either 5.0% ACB Rice Water SF in DI water, unfermented rice water, DI water alone, or nothing (humidity control). A fifth hair swatch was used as a comparative control with no treatment and no humidity exposure. Each test swatch was evenly soaked in its designated treatment and blown dry for one minute. Initial images were taken pre-treatment and drying. The hair swatches were then fastened to the lid of the humidity chamber allowing of a natural hanging position and space in between each swatch. A 2000 mL beaker of boiling water was placed into the chamber and the lid secured allowing of a closed controlled environment. The temperature and humidity was monitored for the duration of the exposure. Final images were taken at the 30 minute time mark.

Resulted in smoother hair after exposure to high humidity compared to untreated hair. (at 5.0%)

Anti-Humidity

Smooths and tames hair & Anti-frizz

Untreated Control



16932 ACB Rice Water SF



Unfermented Rice Water



DI Water



Humidity Control



Untreated Control



16932 ACB Rice Water SF



Unfermented Rice Water



DI Water



Humidity Control



References:

1. Barsagade, P.D., et al. "A Formulation of Face Pack and Hair Products of Rice Water for the Use of Skin and Hair Problem." World Journal of Pharmacy and Pharmaceutical Sciences. 9.4 (2020): 683-694.
2. Marto, J., et al. "Rice Water: A Traditional Ingredient with Anti-Aging Efficacy." Cosmetics. 5.2 (2018): 26.
3. Thitipramote, N., et al. "Health Benefits and Safety of Red Pigmented Rice (Oryza sativa L.): In Vitro, Cellular, and In Vivo Activities for Hair Growth Promoting Treatment." 9.6 (2022): 111.
4. Majchrzak, Weronika, Ilona Motyl, and Krzysztof Smigielski. "Biological and Cosmological Importance of Fermented Raw Materials: An Overview." Molecules 27.15 (2022): 4845

Active Concepts LLC
Lincolnton, NC- USA
Tel +1 704-276-7100
info@activeconceptsllc.com

Active Concepts SRL
Bareggio, (Milano) ITALY
Tel +39 02 90360719
info@activeconcepts.it

Active Concepts LLC, Asia
Kaohsiung, Taiwan
Tel + 886 73599900
info-asia@activeconceptsllc.com.tw

Website
www.activeconceptsllc.com

Social Media
@activeconceptsglobal

Information contained in this technical literature is believed to be accurate and is offered in good faith for the benefit of the customer. The company, however, cannot assume any liability or risk involved in the use of its chemical products since the conditions of use are beyond our control. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. We make no warranty of any kind, expressed or implied, other than that the material conforms to the applicable standard specification. Freedom from patent infringement is not implied. All information is for investigative purposes only.