

ABS Rice Lipids Plus



Vitamin E
 Film Forming
 Natural Intense Moisture
 Natural Binder
 antioxidant activity

BACKGROUND

The 21st century has marked a steady increase in consumer awareness in regards to health conscious products. In part thanks to the calorie craze of the early 2000's, consumers are paying careful attention to ingredient labels. Long chemical nomenclature is no longer acceptable as the mentality of "If I don't recognize it, I'm not going to buy it" has taken hold. Formulators are now striving to develop more natural and naturally derived cosmetics with simple wholesome ingredients.

There are difficulties associated with this process, such as having to make concessions in terms of either product aesthetics or product function. Since its conception, Active Concepts has worked to eliminate these difficult trade-offs for formulators and cosmetics designers. **ABS Rice Lipids Plus** is able to provide both functional and aesthetic properties within a natural and understandable medium. These naturally forming lipids have been found to exhibit film forming properties, making them potent for preventing Trans-epidermal Water-loss (TEWL) which also leads to an increase in overall moisturization. Additionally, **ABS Rice Lipids Plus** has been found to be a superior binding agent for use in powdered products, useful for a variety of cosmetic applications.

Rice constitutes 30% of the world's cereal production and sustains 3 billion people, nearly half the world's population, as daily nourishment. As a dietary staple rice has been irreplaceable, for thousands of years it has been the prime example of human agricultural development. Although its exact origin is unknown, the most popularly accepted theory dates the origins of cultivated rice to the Eastern Himalayan Mountains 8500 B.C. Although there are over 120,000 different cultivars of rice, the three most prolific are Indica (Fluffy and high in amylose), Japonica (Sticky and low in amylose), and Javanica (slightly sticky with intermediate amylose). Amylose is the polysaccharide that constitutes the majority of the energy within a rice granule.¹

Code Number: 10350

INCI Name: Oryza Sativa (Rice) Lipids

INCI Status: Approved

REACH Status: Complies

CAS Number: 8016-60-2

EINCS Number: 232-409-7

Origin: Botanical

Processing:

GMO Free

No Ethoxylation

No Irradiation

No Sulphonation

Additives:

Preservatives: None

Antioxidants: None

Other additives: None

Solvents Used: N/A

Appearance: Clear to Slightly

Hazy Liquid

Soluble/ Miscible: Oil Soluble

Microbial Count: < 100 CFU/g,

No Pathogens

Suggested Use Levels: 1.0 - 5.0%

Suggested Applications:

Moisturization, Barrier Function,
 Binding Agent

Benefits of **ABS Rice Lipids Plus:**

- Natural Binding Ability
- Intense Moisturizing Benefits
- Barrier Function

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SCIENCE

The use of rice derivatives in cosmetics is an excellent way to incorporate natural, active ingredients that have product driving consumer recognition. **ABS Rice Lipids Plus** have excellent film forming benefits and contribute to improvements in moisturization. The coefficient of permeability indicates that it will minimize TEWL, while the hydration potential confirms that **ABS Rice Lipids Plus** are an effective moisturizer. Waxes, silicones, oils and esters are typically used as binding agents, though the decision to use these products often varies. However, factors typically included in the consideration process are payoff, ease of spread-ability and specific company or market restrictions.²

ABS Rice Lipids Plus was created for its versatility in formulations, an important property when working with raw materials. Specifically, as a binder in both liquid color cosmetics and powder based formulations, **ABS Rice Lipids Plus** can increase spread-ability whilst simultaneously proving moisturizing and antioxidant benefits for natural cosmetics. Having been standardized for Vitamin E, **ABS Rice Lipids Plus** is a potent antioxidant capabilities because Vitamin E is a powerful anti-oxidant that exists in eight forms. An important benefit of standardizing for Vitamin E is that it has the ability to regulate Vitamin A in the body, which itself is important for healthy skin. Additionally, because of its antioxidant activity, Vitamin E is vital in protecting skin cells from UV light, pollution, and other elements that produce cell-damaging free radicals.³

BENEFITS

Due to the fact that free radicals play an important role in skin aging, the antioxidant activity is a desired benefit for skin care. When used as a binding system, **ABS Rice Lipids Plus** delivers ease of spread-ability to cosmetic preparations while also providing sufficient payoff in pressed powders. With its light weight and low viscosity, **ABS Rice Lipids Plus** can also be used as a binder in liquid color cosmetics as well. Its ease of use should also be taken into consideration, as unlike waxes, **ABS Rice Lipids Plus** does not need to be melted prior to use. There is an inverse relationship between barrier function and a coefficient of permeability. As a result, the low coefficient of permeability for **ABS Rice Lipids Plus** indicates that it is excellent for creating a barrier on the skin.

EFFICACY DATA

The high water holding capacity coefficient for **ABS Rice Lipids Plus** confirms that it is capable of delivering water to the skin for enhanced hydration, this can lead to greater long term moisturization.

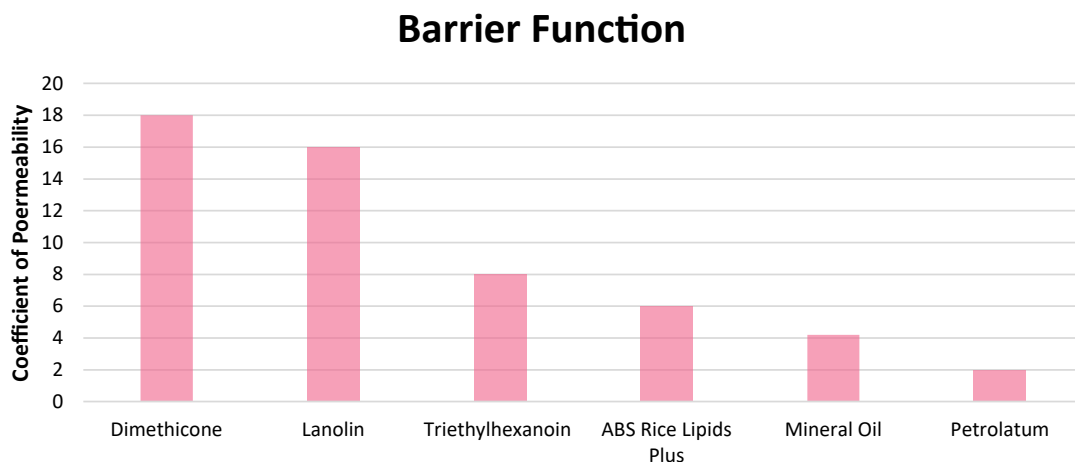


Figure 1. Hydration Potential

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Hydration Potential

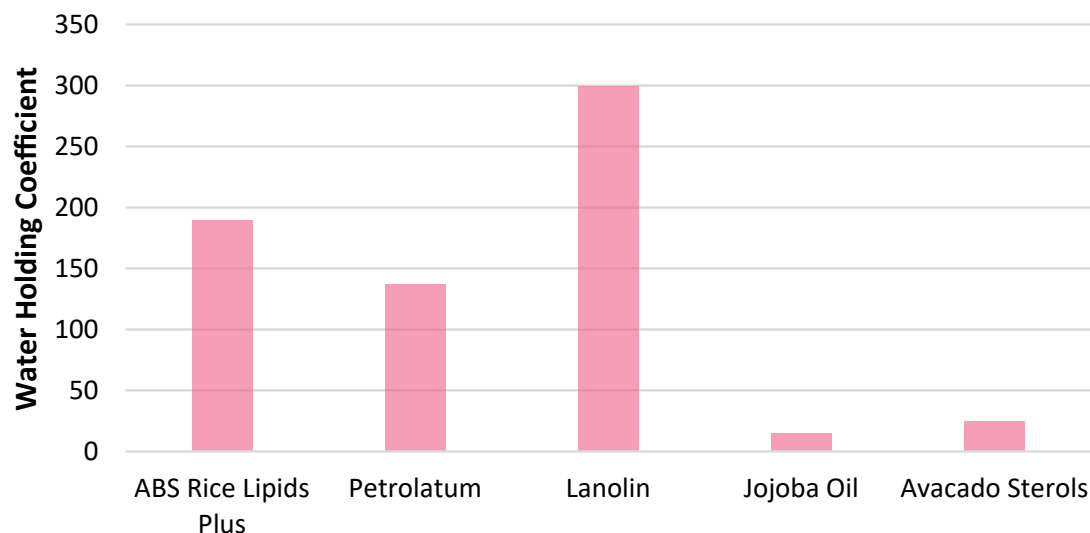


Figure 2. Barrier Function

References

- 1) Yang, L. et al. 2012. Journal of Life Sciences. Rice protein improves oxidative stress by regulating glutathione metabolism and attenuating oxidative damage to lipids and proteins in rats. 91(11-12): 389-394
- 2) Norhaizan, M. et al. 2013. Journal of Food Chemistry. Antioxidant activity of white rice, brown rice and germinated brown rice (in vivo and in vitro) and the effects on lipid peroxidation and liver enzymes in hyperlipidaemic. 141(2):1306-1312
- 3) Deba, K. et al. 2012. Department of Food Engineering and Technology, Tezpur University. Development of a rice starch-based coating with antioxidant and microbe-barrier properties and study of its effect on tomatoes stored at room temperature. 50(1): 272-278