## three ships

# **Rice Powder Research Paper**

#### **APPEARS IN**



Oryza sativa (rice) powder is a natural exfoliating ingredient manufactured from rice seeds. The grains from rice powder are inspired by Asian traditions and have been traditionally used to clean skin for centuries. Given their shape and texture, they effectively exfoliate without irritating the skin. The light-yellow powder is moisturizing and has emollient properties as well. Three Ships' <u>Superfruit</u> <u>Exfoliating Mask</u> utilizes this natural formulation to achieve soft and silky skin.

### GIVEN THEIR SHAPE AND TEXTURE, THEY EFFECTIVELY EXFOLIATE WITHOUT IRRITATING THE SKIN

Rice is a semiaquatic annual grass cultivated worldwide. For almost 40% of the world population, rice is a staple food; however, it has long been used in cosmetics for its effective therapeutic properties. For instance, in the Malay traditional cosmetic practice, a mask with rice powder is applied at night to prevent skin breakouts, achieve even skin tone, and obtain fairer skin. Rice powder is rich in antioxidant components and are non-irritants, free from any harsh chemicals.





Oryza Sativa (Rice) Powder is extracted from the dehulling (removal of the seeds) of natural brown rice. The vitamin-rich powder is formed and extracted.

The exact method of extraction of rice powder that Three Ships sources is proprietary information.

#### S THE WAY BEAUTY SHOULD BE. @THREESHIPSBEAUTY THREESHIPSBEAUTY.COM



## FINDINGS SUGGEST THAT BROWN RICE POWDER IS AN EFFECTIVE ANTIOXIDANT

The free radical theory, first proposed in 1954, postulates that aging is caused by free radical reactions. These reactions are irreversible and may be a result of environment, disease, and intrinsic aging. The theory suggests that an individual's lifespan can be increased by slowing the rate of initiation of random free radical reactions. A free radical is a chemical species possessing an unpaired electron. Reactive oxygen species are a subset of free radicals that contain oxygen. Oxidative stress occurs when there is an imbalance between the generation of free radicals and the activity of antioxidant defense. Too much oxidative stress can result in cell damage; hence, the generation of too many free radicals can be harmful. Intracellular mechanisms can often reduce the damaging effects of free radicals; however, with age, endogenous antioxidative mechanisms may not work as effectively and oxidative stress is a more likely occurrence.

#### SCIENTIFIC STUDY

## Examination of Antioxidant Activity and Development of Rice Bran Oil and Gamma-Oryzanol Microemulsion

In this study, the antioxidant activity of rice bran oil was studied. Free radical scavenging activity of rice bran oil for DPPH assay (most commonly used antioxidant assay for plant extract) was analyzed. The developed formulation had high antioxidant activity with no skin irritation.

## Antioxidant and phytochemical content of commercial brown rice (Ecobrown) and white rice (Jasmine, Jati Super Special and Manggo Thai) for potential cosmetic rice powder raw materials

In this study, rice samples were extracted, and their antioxidant activity was examined. The rice samples used in this study included Ecobrown rice and Jasmine white rice. The antioxidant capacity of rice samples was measured using DPPH assay. Total phenolic and flavonoid content was also determined. Brown rice was found to have a significantly higher amount of phenolic content relative to other rice samples. Moreover, brown rice had higher antioxidant activity relative to other samples. Overall, the study found that brown rice, which is used to source the Three Ships Superfruit Exfoliating Mask, is an effective antioxidant.

All in all, the findings suggest that brown rice powder is an effective antioxidant with the highest phenolic acids relative to other rice samples. Antioxidants reduce oxidative stress, due to environmental stressors and skin aging, by neutralizing reactive oxygen species. Moreover, rice powder has exfoliating properties which help increase the cell renewal rate and achieve a smoother complexion of the skin. The rice powder used by Three Ships is GMO-free, organic, vegan, and COSMOS-verified.

# THE WAY BEAUTY SHOULD BE. @THREESHIPSBEAUTY THREESHIPSBEAUTY.COM