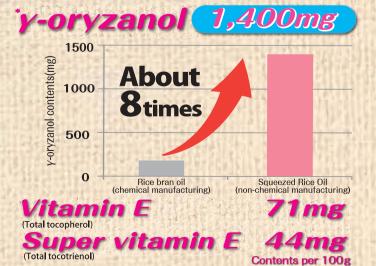


Made from Bran Japanese Rice Bran

Squeezed Rice Oil is a non-chemical, vegetable-derived oil that has been extracted from Japanese rice bran and physically refined.

Since it contains  $\gamma$ -oryzanol, tocopherol(vitamin E), and tocotrienol(super vitamin E), you can expect brightening effects(tyrosinase inhibitory), UV-ray absorbing effects, anti-oxidant effects and moisturizing effects.



Fatty acid: Oleic acid 43%, linoleic acid 35%, palmitic acid 16%

\*y-oryzanol: A component found abundantly in rice bran. An ester formed by condensation of ferulic acid and sterol. Known to be effective in several areas including brightening, anti-oxidation, UV-ray absorption, and moisturization.

#### **Features**

### **Anti-aging**

- -Contains  $\gamma$ -oryzanol which is effective for brightening (tyrosinase inhibitory effects).
- -Contains vitamin E and super vitamin E, which both have anti-oxidant effects.

#### Non-chemical manufacturing

-This oil is extracted using physical pressing and processed using a physical manufacturing process(steam refining)
This is a non-chemically refined oil that does not use organic solvents during extraction and does not use chemicals during the refinement process.

Applications: Cleansing, beauty serum, emulsion, creams, hair-care products, etc.

\*Source data: Sanwa Yushi Co., Ltd. From in-house data

# Squeezed Rice Oil

## Physical manufacturing process realized by persistent efforts

#### POINT ' Japanesegrown raw materials .lananese-grown rice

is processed in Japan

## **Pressing** method with ensured traceability

Extracted using physical pressing without using organic solvent

POINT 2

## POINT 3

**Physical** manufacturing (refining)

Refined using

### Steam-refining method

The method obtains high quality refined oil by blowing steam under a high vacuum and high temperature to effectively remove steam refining method free fatty acids, pigments and odoriferous substances, etc., at the same time.

> Capable of retaining active ingredients.

## Squeezed rice oil (Non-chemical manufacturing)

Japanese rice bran

Compressing

Remove contaminants

Degumming

Dewaxing

Bleaching

Deacidification• Removal of odors

## Rice bran oil (chemical manufacturing)

Rice bran

Extract using solvents

Remove contaminants Degumming

Deacidification

Dewaxing

**Bleaching** Deodorization

Organic solvents

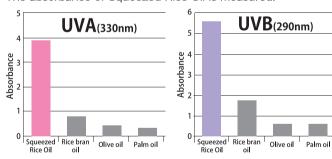
Chemical

Absorbent

## **UV-ray absorption**

#### **Test Method**

The absorbance of Squeezed Rice Oil is measured.



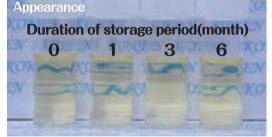
Squeezed Rice Oil exhibited a higher UV-ray absorbing effect than the other oils. (Its UVA and UVB were about 5 and 3 times greater, respectively, than those of rice bran oils by chemical manufacuring.)

\*Source data: Sanwa Yushi Co., Ltd.

# **Stability**

#### Test Method

Squeezed Rice Oil was stored under conditions of high temperature and humidity (40°C, 75% RH) for 6 months. Changes in color over time were compared.



No major changes were observed in the transparency or color of Squeezed Rice Oil stored under conditions of high temperature and humidity.

## Safety evaluation

## Human repeated insult patch test (HRIPT): Negative

Product No.	Product name	INCI name/Chinese INCI name	Other ingredient	Package
RBS-105	Squeezed Rice Oil	ORYZA SATIVA (RICE) BRAN OIL 稻 (ORYZA SATIVA) 糠油		16.5kg

Country of origin: Japan

This product, "Squeezed Rice Oil", was developed jointly by Sanwa Yushi Co., Ltd. and KOKEN Co., Ltd.

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