



ORYZA OIL & FAT CHEMICAL CO.,LTD.

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PRODUCT STANDARD

PRODUCT NAME: **JAPANESE BUTTERBUR EXTRACT-WSP** (FOOD)

This product is extracted with aqueous ethanol from Japanese butterbur, the stem and the leaves of *Petasites japonicus* (Compositae). This product is water-soluble.

Appearance

Slight yellowish powder with slight unique smell.

Certification Test

Fukinolic acid

After a small amount of methanol (HPLC grade) is added to 250mg of this product in a 10mL volume flask, and the flask is treated with ultra-sonic wave for 10 minutes. The solution is filtered through a 0.45 μ m PTFE filter after addition of methanol (HPLC grade) to adequate volume. For preparation of standard solution, methanol (HPLC grade) is added to fukinolic acid, and the concentration is prepared 0.1mg/mL (standard solution). HPLC analysis is performed according to the following conditions for 5 μ L of test solution and standard solution. The peak of fukinolic acid is found in the HPLC chromatogram of test solution.

< HPLC condition >

Column : capcellpak C18 (4.6 mm ϕ \times 250 mm)
 Mobile phase : Solvent A = Citric acid solution
 (citric acid monohydrate 2.1g \rightarrow 1L)
 Solvent B = Methanol

Condition of gradient

Time(min)	0	19	25	35	50	60	61	70
Mobile phase	100% A	100% A	80% A 20% B	80% A 20% B	60% A 40% B	60% A 40% B	100% B	100% B

Flow rate : 1.0mL/min

Detector : UV 324 nm

Column temperature : 30°C

Total polyphenols

Min. 1.0 % (Folin-Denis method)

Loss on Drying

Max. 10.0 % (Analysis for Hygienic Chemists, 1g, 105 °C, 2 hr)

Purity Test

(1) Heavy Metals (as Pb)

Max. 10 ppm (Sodium Sulfide Colorimetric Method)

(2) Arsenic (as As₂O₃)

Max. 1 ppm (Standard Methods of Analysis in Food Safety Regulation, The Third Method, Apparatus B)

Standard Plate Counts

Max. 3 \times 10³ cfu/g (Analysis for Hygienic Chemists)

Moulds and Yeasts

Max. 1 \times 10³ cfu/g (Analysis for Hygienic Chemists)

Coliforms

Negative (Analysis for Hygienic Chemists)



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Composition

<u>Ingredient</u>	<u>Content</u> (Values are just a guide)
Maltodextrin	80 %
<u>Japanese Butterbur Extract</u>	<u>20 %</u>
Total	100 %

Expiry date

2 years from date of manufacturing.

Storage

Store it in a cool, dry, ventilated area with desiccant.

Keep it away from high temperature and sunlight, and store it in a closed container.

Established Date	June 5, 2004
Revised Date	October 13, 2021
Specification No.	Z-113EN