

ORYZA OIL & FAT CHEMICAL CO.,LTD.

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PRODUCT STANDARD

PRODUCT NAME : ALPHA LIPOIC ACID-PC80 (COSMETIC)

This product guarantees a minimum of 80.0 % α -lipoic acid (thioctic acid, 1,2-dithiolane-3-pentanoic acid).

<u>Appearance</u> Slight yellow or yellow powder.

It has odorless or slightly characteristic odor.

<u>Identification</u> The maximum absorbance wave length: 331 - 335 nm.

The minimum absorbance wave length: 278 - 283 nm.

α-Lipoic Acid Min. 80.0 % (HPLC)

Loss on Drying Max. 0.5 % (Analysis for Hygienic Chemists,

1g, 40°C, reduced pressure, P₂O₅, 4 h)

Ignition Residue Max. 0.1 %

Purity Test

(1)6,8-Epitrithiooctanoic acid Max. 0.1 % (HPLC)

(2)Heavy Metals (as Pb) Max. 10 ppm (The Second Method of The Japanese

Standards of Quasi-Drug Ingredients)

(3)Arsenic (as As₂O₃) Max. 1 ppm (The Third Method of The Japanese

Standards of Quasi-Drug Ingredients)

Standard Plate CountsMax. 1×10^2 cfu/g(Analysis for Hygienic Chemists)Moulds and YeastsMax. 1×10^2 cfu/g(Analysis for Hygienic Chemists)ColiformsNegative(Analysis for Hygienic Chemists)

Residual Solvents

(1)**Ethanol** Max. 0.1 % (GC)

(2)Other Solvents

Acetone Not detected (Less than 1 ppm) (GCMS) Cvclohexane Not detected (Less than 1 ppm) (GCMS) **Dichloromethane** Not detected (Less than 1 ppm) (GCMS) Ethyl acetate Not detected (Less than 1 ppm) (GCMS) Hexane Not detected (Less than 1 ppm) (GCMS) **MTBE** Not detected (Less than 1 ppm) (GCMS) **Toluene** Not detected (Less than 1 ppm) (GCMS)

<u>Composition</u> Ingredient Content (Values are just a guide)

Thioctic Acid 80 %
Hydrogenated Rapeseed Oil 20 %
Total 100 %

Expiry date Storage 2 years from date of manufacturing.

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	March 23, 2006
Revised Date	May 9, 2024
Specification No.	T-409EN