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PRODUCT STANDARD

PRODUCT NAME : **ALPHA LIPOIC ACID-PC** (COSMETIC)

This product guarantees a minimum of 98.0 % α -lipoic acid (thioctic acid, 1,2-dithiolane-3-pentanoic acid).

Appearance

Pale yellow to yellow or yellowish crystalline powder. It has odorless or slightly characteristic odor. Soluble in chloroform and ethanol. Slightly soluble in water.

Identification

The maximum absorbance wave length : 331 - 335 nm.

The minimum absorbance wave length : 278 - 283 nm.

α -Lipoic Acid

Min. 98.0 % (HPLC)

Melting Point

60 - 63°C

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)Polymer

Max. 2.0 % (Precipitation Method)

(3)Heavy Metals (as Pb)

Max. 10 ppm (The Second Method of The Japanese Standards of Quasi-Drug Ingredients)

(4)Arsenic (as As₂O₃)

Max. 1 ppm (The Third Method of The Japanese Standards of Quasi-Drug Ingredients)

Standard Plate Counts

Max. 1×10² cfu/g (Analysis for Hygienic Chemists)

Moulds and Yeasts

Max. 1×10² cfu/g (Analysis for Hygienic Chemists)

Coliforms

Negative (Analysis for Hygienic Chemists)

Residual Solvents

(1)Ethanol

Max. 0.1 % (GC)

(2)Other Solvents

Acetone

Not detected (Less than 1 ppm) (GCMS)

Cyclohexane

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)

Composition

<u>Ingredient</u>	<u>Content</u>
Thioctic Acid	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	July 3, 2004
Revised Date	May 9, 2024
Specification No.	T-409EN