SPECIFICATION SHEET

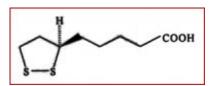


(512) 535-2711

State of the art ingredients · fast friendly service

ALPHA LIPOIC ACID

Molecular Structure



Molecular formula $C_8H_{14}O_2S_2$ Molecular weight 206.33

Description A yellow powder, almost odorless Identification a) To comply by IR Spectrum

b) To comply by HPLC

Solubility Practically insoluble in water,

Soluble in methanol, alcohol and chloroform.

Clarity of solution A 10% solution in 1 N sodium hydroxide is clear and yellow.

Melting Range Between 58° C and 62° C

Residue on ignition Not more than 0.1%

Specific optical rotation Between -1° and $+1^{\circ}$ (2 % w/v solution in benzene at room temp.)

Heavy metals

Arsenic

Not more than 20 ppm

Not more than 1 ppm

Not more than 10 ppm

Tapped Bulk Density

Between 0.40 and 0.60 g/ml

Between 0.30 and 0.40 g/ml

Sieve test

-20 mesh Not less than 100.0% -40 mesh Not less than 85.0% -80 mesh Not less than 75.0%

Assay

-By HPLC Not less than 99.0% on dried basis

Microbiological Profile

Total Plate Count
 Yeast and mold
 Less than 5,000 cfu/g
 Less than 100 cfu/g

E.coli Negative
 Salmonella Negative
 Staphylococcus aureus Negative
 Pseudomonas aeruginosa Negative
 Coliforms £3/g