



NANJING GEMSEN INTERNATIONAL CO., LTD.

Add : Suite 2003, RuihuaMansion,

#315 Zhongshan Nanlu, Nanjing210001, China

E-mail: gemsen@china.com Website : www.gemsen.cn

Tel: 86 25 58074061, 58074062, 58074063 Fax: 86 25 58074065

Certificate of Analysis

Product Name: R(+)-Alpha Lipoic Acid Sodium

Batch No.: 080313

Manufacture Date: Mar. 13, 2008

Test Date: Mar. 15, 2008

Expiry Date: Mar. 12, 2010

Items	Specifications	Results
Appearance	A pale yellow crystalline powder	Conforms
Identification	Meet the requirements	Conforms
Specific Rotation [α] ²⁵ D	+85.0°~+95.0°	+90.0°
Loss on Drying	<3.0%	<2.3%
Solubility (1N NaOH)	Soluble in water	Conforms
Polymer (TLC)	<3.0%	≤2.0%
Heavy Metals	≤10ppm	Conforms
Total Plate Count	≤1,000 cfu/g	Conforms
Yeast & Mold	≤100 cfu/g	Conforms
E. Coli	Negative	Conforms
Salmonella	Negative	Conforms
Assay	≥85.00% (by HPLC)	86.5%

Conclusion: Conform to Gemsen Enterprise Standard