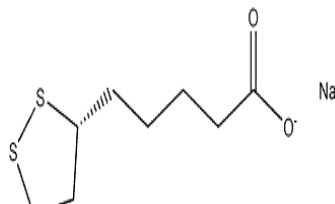


# Career Henan Chemical Co

Room 702, Floor 7, Building 10, National University Science Park, High-Tech Zone,  
Zhengzhou City, Henan Province

## CERTIFICATE OF ANALYSIS

Product Name:	R(+)-Alpha Lipoic Acid SodiumM	CAS NO:	176110-81-9
Molecular Formula:	C8H13NaO2S2	Constitutional Formula :	
Molecular Weight:	228.30739		
Manufacture date:	2018.04.30		
Batch No.:	20180430		
Expiration date	2020.04.29		
Test Items	Specification	Test Results	
Description	Off white or pale yellow powder	Pale yellow powder	
Identification by H <sup>1</sup> NMR	Conforms to reference spectrum	Conforms	
Assay by HPLC (Area %)	≥98.0%	98.2%	
Optical isomers	≤2.0%	1.37%	
Melting point(°C)	230.0--260.0°C	231--236°C	
Optical rotation	+60.0--+85.0°	+65.6°	
Loss on drying	≤3.0%	Conforms	
Heavy metals	≤10 ppm	Conforms	
Conclusion	This product conforms to the national standards		

Analyst: 连俊昊



Supervisor: 李文