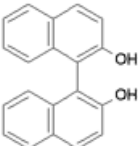


Certificate of Analysis (COA)

Product Name	1,1'-Bi-2-Naphthol : BINOL		Structural Formula 
Synonyms	(±)-2,2'-Dihydroxy-1,1'-dinaphthyl		
Batch NO.	20120330		
Total Quantity	5311kg		
CAS Number	602-09-5		
MFG Date	2012/3/30		
Package	25kg		

Items of test	Standard SR-CHEM	Result
Appearance	White to light yellow Crystalline powder	White to light yellow Crystalline powder
Assay(HPLC)	>99.5%	99.87%
Assay (titration)	98.0%-101.0%	99.98%
Melting point	216-218 °C	216-218 °C
Loss on drying	<0.20%	0.103%

Additional requirements:

A: _____ / _____ E: _____ / _____
 B: _____ / _____ F: _____ / _____
 C: _____ / _____ G: _____ / _____

Attachment: _____ / _____
 HPLC diagram: _____ 1/P. _____
 Result of inspection: _____ Conforming article _____
 Examiner: _____ Guo zhong xiu _____