Apollo Scientific Ltd Whitefield Road, Bredbury, Stockport, SK6 2QR, UK. Tel:44(0)161 406 0505 Fax:44(0)161 406 0506 e-mail: QCDept@apolloscientific.co.uk



## -CERTIFICATE OF ANALYSIS-

Product: (R)-3,3'-Bis(diphenylphosphanyl)-1,1'-binapthyl-2,2'-diyl hydrogenphosphate

Code Number: OR340034

CAS Number:

Formula: C44 H31 O4 P3

Batch Number: AS462430

Appearance: Off-White solid

Purity by HPLC: 97% by area

Purity 98.9% by Chiral HPLC

Identity: 1H and 13C NMR conform

to structure

Verified by: David Parton

Signed: --Digital document, no signature required--