

Chem-Impex International, Inc.

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Certificate of Analysis

| | |
|--------------------------|---|
| Catalogue Number | 16556 |
| Lot Number | 001702-20140226 |
| Product | (R)-(-)-1,1'-Binaphthyl-2,2'-diyl hydrogen phosphate |
| CAS Number | 39648-67-4 |
| Molecular Formula | C ₂₀ H ₁₃ O ₄ P |
| Molecular Weight | 348.29 |

| | |
|-------------------------|--|
| Appearance | White powder |
| Melting Point | > 300 °C (dec.) |
| Optical Rotation | [α] _D ²⁰ = -605.6° (C=1.35, MeOH) |
| Loss on Drying | 0.20% |
| Purity by HPLC | 99.79% |
| Chiral Purity | 99.73% (ee) |
| Storage | Store at 0-8 °C |
| Remarks | See material safety data sheet for additional information For laboratory use only |

The foregoing is a copy of the Certificate of Analysis as provided by our supplier



Bala Kumar
Quality Control Manager