

Chem-Impex International, Inc.

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Certificate of Analysis

| | |
|--------------------------|--|
| Catalogue Number | 16566 |
| Lot Number | 001702-201130511 |
| Product | (R)-(+)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthalene (R)-(+)-BINAP |
| CAS Number | 76189-55-4 |
| Molecular Formula | C ₄₄ H ₃₂ P ₂ |
| Molecular Weight | 622.67 |

| | |
|-------------------------|--|
| Appearance | Off-white solid |
| Melting Point | 242-243 °C |
| Optical Rotation | [α] _D ²⁵ = + 237.5 ° (C=0.3 in toluene) |
| Chiral HPLC | 98.7% (ee) |
| Purity by HPLC | 98.75% |
| 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