



CAS Registry Number: 148461-13-6

Molecular Formula: C₂₈H₂₄NOP

Molecular Weight: 421.478

Accurate Mass: 421.159551

Percentage Composition: C 79.79%; H 5.74%; N 3.32%; O 3.80%; P 7.35%

Use/Importance: Chiral ligand

Physical Description: Solid

Melting Point: Mp 106-108°

Optical Rotation: $[\alpha]_D^{23} +25.8$ (c, 1.1 in CHCl₃)

>>Variant: 2-[2-(Diphenylphosphino)phenyl]-4,5-dihydro-4-phenyloxazole, 9Cl

Synonym(s): 2-[2-(Diphenylphosphino)phenyl]-4-phenyl-2-oxazoline

CAS Registry Number: 148461-15-8

Extra CAS Registry Numbers(s): 189169-55-9

Molecular Formula: C₂₇H₂₂NOP

Molecular Weight: 407.451

Accurate Mass: 407.143901

Percentage Composition: C 79.59%; H 5.44%; N 3.44%; O 3.93%; P 7.60%

Use/Importance: Chiral ligand

Physical Description: Solid

Melting Point: Mp 57-58°

Optical Rotation: $[\alpha]_D^{23} +30.9$ (c, 1 in CHCl₃)

Other Data: (R)-enantiomer also reported, with a similar but opposite opt. rotn. but a much higher Mp (118-119°)

References:

Allen, J.V. *et al.*, *Tetrahedron*, 1994, **50**, 799-808, (*synth, ir, pmr, cmr, use*)

Koch, G. *et al.*, *Rec. Trav. Chim. (J. R. Neth. Chem. Soc.)*, 1995, **114**, 206-210, (*synth, ir, pmr, cmr, P-31 nmr, use*)

Peer, M. *et al.*, *Tetrahedron*, 1996, **52**, 7547-7583, (*synth, pmr, cmr, P-31 nmr, use*)

Helmchen, G. *et al.*, *Acc. Chem. Res.*, 2000, **33**, 336-345, (*rev, use*)