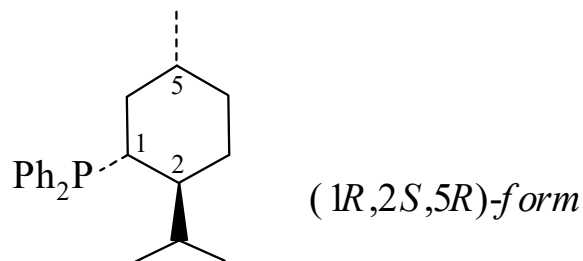




>>Entry Name: (5-Methyl-2-isopropylcyclohexyl)diphenylphosphine

Synonym(s): [5-Methyl-2-(1-methylethyl)cyclohexyl]diphenylphosphine, 9Cl. (2-Diphenylphosphino)-1-isopropyl-4-methylcyclohexane. 3-(Diphenylphosphino)-*p*-menthane



CAS Registry Number: 32511-22-1

Molecular Formula: C₂₂H₂₉P

Molecular Weight: 324.445

Accurate Mass: 324.200687

Percentage Composition: C 81.44%; H 9.01%; P 9.55%

Use/Importance: Used in conjunction with Rh or Pd, as catalyst for asymmetric hydroformylations, cyclizations, dehydrogenations, hydrogenations and hydrocarboalkoxylations

>>Variant: (1*R*,2*S*,5*R*)-form

Synonym(s): Menthylidiphenylphosphine. MDPP

CAS Registry Number: 43077-31-2

Molecular Formula: C₂₂H₂₉P

Molecular Weight: 324.445

Accurate Mass: 324.200687

Percentage Composition: C 81.44%; H 9.01%; P 9.55%

Melting Point: Mp 57.5-58.5°

Optical Rotation: $[\alpha]_{\text{D}}^{20} -95.7$ (c, 1.07 in CH₂Cl₂)

>>Derivative: Oxide

CAS Registry Number: 43077-32-3

Molecular Formula: C₂₂H₂₉OP

Molecular Weight: 340.444

Accurate Mass: 340.195602

Percentage Composition: C 77.62%; H 8.59%; O 4.70%; P 9.10%

Physical Description: Solid

Melting Point: Mp 183.5-185°

Optical Rotation: $[\alpha]_{\text{D}}^{25} -87.4$ (c, 1.74 in EtOH)

>>Variant: (1*S*,2*S*,5*R*)-form

Synonym(s): Neomenthylidiphenylphosphine. NMDPP

CAS Registry Number: 43077-29-8

Molecular Formula: C₂₂H₂₉P

Molecular Weight: 324.445

Accurate Mass: 324.200687

Percentage Composition: C 81.44%; H 9.01%; P 9.55%

Physical Description: Cryst. (petrol)

Melting Point: Mp 96-99°

Boiling Point: Bp_{0.2} 165-170°

Optical Rotation: $[\alpha]_{\text{D}}^{23} +94.4$ (c, 1.26 in CH₂Cl₂)

Aldrich: 32788-3

>>Derivative: Benzyl bromide

Synonym(s): Benzylneomenthylidiphenylphosphonium bromide

Molecular Formula: C₂₉H₃₆BrP

Molecular Weight: 495.481

Accurate Mass: 494.193798

Percentage Composition: C 70.30%; H 7.32%; Br 16.13%; P 6.25%

Physical Description: Cryst. (C₆H₆/MeOH)

Melting Point: Mp 220-223°