

# 2,3-O-Isopropylidene-2,3-dihydroxy-1,4-bis(diphenylphosphino)butane

Other names:

(-)-	(-)-DIOP
	(-)-1,4-Bis(diphenylphosphino)-2,3-O-isopropylidene-2,3-butanediol
	(R,R)-DIOP
	(4R,5R)-4,5-Bis(diphenylphosphinomethyl)-2,2-dimethyl-1,3-dioxolane
	Phosphine, [(2,2-dimethyl-1,3-dioxolane-4,5-diyl)bis(methylene)]bis[diphenyl-, (4R-trans)-
	Phosphine, [(2,2-dimethyl-1,3-dioxolane-4,5-diyl)dimethylene]bis[diphenyl-, trans(-)-
	(-)-2,2-dimethyl-4,5-((diphenylphosphino)dimethyl)dioxolane
	(-) 2,3-O-isopropylidene-2,3-dihydroxy-1,4-bis(diphenylphosphino)butane
<b>Inchi:</b>	InChI=1S/C31H32O2P2/c1-31(2)32-29(23-34(25-15-7-3-8-16-25)26-17-9-4-10-18-26)30
<b>InchiKey:</b>	VCHDBLPQYJAQSQ-UHFFFAOYSA-N
<b>Formula:</b>	C31H32O2P2
<b>SMILES:</b>	CC1(C)OC(CP(c2ccccc2)c2ccccc2)C(CP(c2ccccc2)c2ccccc2)O1
<b>Mol. weight [g/mol]:</b>	498.53
<b>CAS:</b>	32305-98-9

## Physical Properties

Property code	Value	Unit	Source
log10ws	-17.37		Crippen Method
logp	5.772		Crippen Method
mcpvol	394.410	ml/mol	McGowan Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hfust	38.61	kJ/mol	229.00	NIST Webbook

## Sources

**Crippen Method:**

<http://pubs.acs.org/doi/abs/10.1021/ci9903071>

**Crippen Method:**

[https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

**McGowan Method:**

<http://link.springer.com/article/10.1007/BF02311772>

## Legend

<b>hfust:</b>	Enthalpy of fusion at a given temperature
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume

Latest version available from:

<https://www.cheméo.com/cid/73-617-6/2-3-O-Isopropylidene-2-3-dihydroxy-1-4-bis-diphenylphosphino-butane.pdf>

Generated by Cheméo on 2024-04-19 16:43:27.966887351 +0000 UTC m=+15834256.887464664.

Cheméo (<https://www.cheméo.com>) is the biggest free database of chemical and physical data for the process industry.