

4-n-Heptylbiphenyl

Other names:	1,1'-Biphenyl, 4-heptyl-
Inchi:	InChI=1S/C19H24/c1-2-3-4-5-7-10-17-13-15-19(16-14-17)18-11-8-6-9-12-18/h6,8-9,11-1
InchiKey:	KZIZPXDIBXXKAJ-UHFFFAOYSA-N
Formula:	C19H24
SMILES:	<chem>CCCCCCCc1ccc(-c2ccccc2)cc1</chem>
Mol. weight [g/mol]:	252.39
CAS:	59662-32-7

Physical Properties

Property code	Value	Unit	Source
gf	324.29	kJ/mol	Joback Method
hf	26.10	kJ/mol	Joback Method
hfus	32.66	kJ/mol	Joback Method
hvap	63.10	kJ/mol	Joback Method
log10ws	-6.97		Crippen Method
logp	5.867		Crippen Method
mcvol	231.050	ml/mol	McGowan Method
pc	1743.37	kPa	Joback Method
tb	692.46	K	Joback Method
tc	911.11	K	Joback Method
tf	369.25	K	Joback Method
vc	0.883	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	632.22	J/molxK	692.46	Joback Method
cpg	651.46	J/molxK	728.90	Joback Method
cpg	669.43	J/molxK	765.34	Joback Method
cpg	686.21	J/molxK	801.78	Joback Method
cpg	701.85	J/molxK	838.23	Joback Method
cpg	716.43	J/molxK	874.67	Joback Method
cpg	730.03	J/molxK	911.11	Joback Method
dvisc	0.0015996	Paxs	369.25	Joback Method

dvisc	0.0007715	Paxs	423.12	Joback Method
dvisc	0.0004387	Paxs	476.99	Joback Method
dvisc	0.0002797	Paxs	530.86	Joback Method
dvisc	0.0001938	Paxs	584.72	Joback Method
dvisc	0.0001428	Paxs	638.59	Joback Method
dvisc	0.0001104	Paxs	692.46	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C59662327&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cp_g:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log₁₀ws:	Log ₁₀ of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
m_{cvol}:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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