Quaterphenyl-

Inchi: InChI=1S/C24H18/c1-3-8-19(9-4-1)21-14-16-22(17-15-21)24-13-7-12-23(18-24)20-10-5-2
InchiKey: JQGLMRCAOAALPG-UHFFFAOYSA-N
Formula: C24H18
SMILES: c1ccc(-c2ccc(-c3cccc(-c4ccccc4)c3)cc2)cc1
Mol. weight [g/mol]: 306.40
CAS: 29036-02-0

Physical Properties

Property code	Value	Unit	Source
gf	581.58	kJ/mol	Joback Method
hf	384.49	kJ/mol	Joback Method
hfus	33.30	kJ/mol	Joback Method
hvap	79.45	kJ/mol	Joback Method
log10ws	-9.28		Crippen Method
logp	6.688		Crippen Method
mcvol	253.980	ml/mol	McGowan Method
pc	2014.51	kPa	Joback Method
rinpol	476.30		NIST Webbook
rinpol	476.30		NIST Webbook
tb	865.20	K	Joback Method
tc	1146.33	K	Joback Method
tf	490.96	K	Joback Method
vc	0.948	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	732.93	J/mol×K	865.20	Joback Method
cpg	803.00	J/mol×K	1099.48	Joback Method
cpg	791.51	J/mol×K	1052.62	Joback Method
cpg	778.96	J/mol×K	1005.77	Joback Method
cpg	765.15	J/mol×K	958.91	Joback Method
cpg	749.87	J/mol×K	912.06	Joback Method
cpg	813.64	J/mol×K	1146.33	Joback Method

dvisc	0.0000654	Pa×s	865.20	Joback Method
dvisc	0.0000827	Pa×s	802.83	Joback Method
dvisc	0.0001086	Pa×s	740.45	Joback Method
dvisc	0.0001500	Pa×s	678.08	Joback Method
dvisc	0.0002213	Pa×s	615.71	Joback Method
dvisc	0.0003563	Pa×s	553.33	Joback Method
dvisc	0.0006475	Pa×s	490.96	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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=C29036020&Units=SI

Legend

cpg:	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:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume