1-Naphthoic acid, 4-biphenyl ester

Inchi: InChI=1S/C23H16O2/c24-23(22-12-6-10-19-9-4-5-11-21(19)22)25-20-15-13-18(14-16-20
InchiKey: UZMPKGLRAOKGIS-UHFFFAOYSA-N
Formula: C23H16O2
SMILES: O=C(Oc1ccc(-c2ccccc2)cc1)c1cccc2ccccc12
Mol. weight [g/mol]: 324.37

Physical Properties

Property code	Value	Unit	Source
gf	333.48	kJ/mol	Joback Method
hf	114.87	kJ/mol	Joback Method
hfus	36.48	kJ/mol	Joback Method
hvap	85.74	kJ/mol	Joback Method
log10ws	-7.97		Crippen Method
logp	5.726		Crippen Method
mcvol	251.630	ml/mol	McGowan Method
pc	2119.73	kPa	Joback Method
rinpol	3259.00		NIST Webbook
tb	910.91	K	Joback Method
tc	1179.31	K	Joback Method
tf	558.13	K	Joback Method
vc	0.946	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	734.58	J/mol×K	910.91	Joback Method
cpg	748.47	J/mol×K	955.64	Joback Method
cpg	761.10	J/mol×K	1000.38	Joback Method
cpg	772.64	J/mol×K	1045.11	Joback Method
cpg	783.24	J/mol×K	1089.84	Joback Method
cpg	793.07	J/mol×K	1134.57	Joback Method
cpg	802.30	J/mol×K	1179.31	Joback Method
dvisc	0.0006381	Pa×s	558.13	Joback Method
dvisc	0.0004132	Pa×s	616.93	Joback Method

dvisc	0.0002886	Pa×s	675.72	Joback Method
dvisc	0.0002135	Pa×s	734.52	Joback Method
dvisc	0.0001652	Pa×s	793.32	Joback Method
dvisc	0.0001324	Pa×s	852.11	Joback Method
dvisc	0.0001092	Pa×s	910.91	Joback Method

Sources

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=U355697&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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