Cyclopentanecarboxylic acid, 2-naphthyl ester

Inchi: InChI=1S/C16H16O2/c17-16(13-6-2-3-7-13)18-15-10-9-12-5-1-4-8-14(12)11-15/h1,4-5,8
InchiKey: SKMMIZABGFBLRQ-UHFFFAOYSA-N
Formula: C16H16O2
SMILES: O=C(Oc1ccc2ccccc2c1)C1CCCC1
Mol. weight [g/mol]: 240.30

Physical Properties

Property code	Value	Unit	Source
gf	95.90	kJ/mol	Joback Method
hf	-141.76	kJ/mol	Joback Method
hfus	24.59	kJ/mol	Joback Method
hvap	65.20	kJ/mol	Joback Method
log10ws	-4.92		Crippen Method
logp	3.935		Crippen Method
mcvol	189.660	ml/mol	McGowan Method
pc	2584.59	kPa	Joback Method
rinpol	2058.00		NIST Webbook
rinpol	2058.00		NIST Webbook
tb	707.69	K	Joback Method
tc	954.96	K	Joback Method
tf	424.78	K	Joback Method
vc	0.711	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	526.62	J/mol×K	707.69	Joback Method
cpg	544.01	J/mol×K	748.90	Joback Method
cpg	560.00	J/mol×K	790.11	Joback Method
cpg	574.68	J/mol×K	831.32	Joback Method
cpg	588.15	J/mol×K	872.53	Joback Method
cpg	600.51	J/mol×K	913.74	Joback Method
cpg	611.87	J/mol×K	954.96	Joback Method
dvisc	0.0016903	Pa×s	424.78	Joback Method

dvisc	0.0011119	Pa×s	471.93	Joback Method
dvisc	0.0007892	Pa×s	519.08	Joback Method
dvisc	0.0005931	Pa×s	566.24	Joback Method
dvisc	0.0004657	Pa×s	613.39	Joback Method
dvisc	0.0003786	Pa×s	660.54	Joback Method
dvisc	0.0003163	Pa×s	707.69	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U307581&Units=SI
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

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