Butyric acid, 2-phenyl-, naphth-2-yl ester

Inchi: InChI=1S/C20H18O2/c1-2-19(16-9-4-3-5-10-16)20(21)22-18-13-12-15-8-6-7-11-17(15)14
InchiKey: HIHXLDQNELJQMF-UHFFFAOYSA-N
Formula: C20H18O2
SMILES: CCC(C(=O)Oc1ccc2ccccc2c1)c1ccccc1
Mol. weight [g/mol]: 290.36

Physical Properties

Property code	Value	Unit	Source
gf	203.00	kJ/mol	Joback Method
hf	-53.55	kJ/mol	Joback Method
hfus	31.53	kJ/mol	Joback Method
hvap	75.74	kJ/mol	Joback Method
log10ws	-6.01		Crippen Method
logp	4.939		Crippen Method
mcvol	233.120	ml/mol	McGowan Method
pc	2081.22	kPa	Joback Method
rinpol	2480.00		NIST Webbook
rinpol	2480.00		NIST Webbook
tb	810.17	K	Joback Method
tc	1055.99	K	Joback Method
tf	470.38	K	Joback Method
vc	0.879	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	666.42	J/mol×K	810.17	Joback Method
cpg	681.93	J/mol×K	851.14	Joback Method
cpg	696.16	J/mol×K	892.11	Joback Method
cpg	709.22	J/mol×K	933.08	Joback Method
cpg	721.22	J/mol×K	974.05	Joback Method
cpg	732.28	J/mol×K	1015.02	Joback Method
cpg	742.51	J/mol×K	1055.99	Joback Method
dvisc	0.0010632	Pa×s	470.38	Joback Method

dvisc	0.0006261	Pa×s	527.01	Joback Method
dvisc	0.0004086	Pa×s	583.64	Joback Method
dvisc	0.0002876	Pa×s	640.27	Joback Method
dvisc	0.0002143	Pa×s	696.91	Joback Method
dvisc	0.0001669	Pa×s	753.54	Joback Method
dvisc	0.0001346	Pa×s	810.17	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=U406876&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