2-Ethylbutyric acid, 4-biphenyl ester

Inchi: InChI=1S/C18H20O2/c1-3-14(4-2)18(19)20-17-12-10-16(11-13-17)15-8-6-5-7-9-15/h5-14
InchiKey: DWGWCKVJEJESPY-UHFFFAOYSA-N
Formula: C18H20O2
SMILES: CCC(CC)C(=O)Oc1ccc(-c2ccccc2)cc1
Mol. weight [g/mol]: 268.35

Physical Properties

Property code	Value	Unit	Source
gf	79.51	kJ/mol	Joback Method
hf	-203.34	kJ/mol	Joback Method
hfus	29.33	kJ/mol	Joback Method
hvap	69.64	kJ/mol	Joback Method
log10ws	-5.82		Crippen Method
logp	4.695		Crippen Method
mcvol	224.400	ml/mol	McGowan Method
pc	1984.12	kPa	Joback Method
rinpol	2183.00		NIST Webbook
rinpol	2183.00		NIST Webbook
tb	745.43	K	Joback Method
tc	974.99	K	Joback Method
tf	415.14	K	Joback Method
vc	0.846	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	626.40	J/mol×K	745.43	Joback Method
cpg	698.31	J/mol×K	936.73	Joback Method
cpg	686.27	J/mol×K	898.47	Joback Method
cpg	673.11	J/mol×K	860.21	Joback Method
cpg	658.78	J/mol×K	821.95	Joback Method
cpg	643.23	J/mol×K	783.69	Joback Method
cpg	709.30	J/mol×K	974.99	Joback Method
dvisc	0.0000895	Pa×s	745.43	Joback Method

dvisc	0.0001161	Pa×s	690.38	Joback Method
dvisc	0.0001574	Pa×s	635.33	Joback Method
dvisc	0.0002262	Pa×s	580.28	Joback Method
dvisc	0.0003506	Pa×s	525.24	Joback Method
dvisc	0.0006022	Pa×s	470.19	Joback Method
dvisc	0.0011940	Pa×s	415.14	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=U370433&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