Diethylmalonic acid, butyl 2-ethoxylethyl ester

Inchi: InChI=1S/C15H28O5/c1-5-9-10-19-13(16)15(6-2,7-3)14(17)20-12-11-18-8-4/h5-12H2,1-4
InchiKey: IESLFDSTNFTTHC-UHFFFAOYSA-N
Formula: C15H28O5
SMILES: CCCCOC(=O)C(CC)(CC)C(=O)OCCOCC
Mol. weight [g/mol]: 288.38

Physical Properties

Property code	Value	Unit	Source
gf	-494.58	kJ/mol	Joback Method
hf	-983.50	kJ/mol	Joback Method
hfus	33.95	kJ/mol	Joback Method
hvap	68.41	kJ/mol	Joback Method
log10ws	-2.67		Crippen Method
logp	2.716		Crippen Method
mcvol	242.960	ml/mol	McGowan Method
pc	1521.12	kPa	Joback Method
rinpol	1658.00		NIST Webbook
tb	714.37	K	Joback Method
tc	896.66	K	Joback Method
tf	427.78	K	Joback Method
vc	0.930	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	708.91	J/mol×K	714.37	Joback Method
cpg	725.12	J/mol×K	744.75	Joback Method
cpg	740.47	J/mol×K	775.13	Joback Method
cpg	754.97	J/mol×K	805.52	Joback Method
cpg	768.62	J/mol×K	835.90	Joback Method
cpg	781.44	J/mol×K	866.28	Joback Method
cpg	793.43	J/mol×K	896.66	Joback Method
dvisc	0.0009493	Pa×s	427.78	Joback Method
dvisc	0.0004894	Pa×s	475.54	Joback Method

dvisc	0.0002847	Pa×s	523.31	Joback Method
dvisc	0.0001813	Pa×s	571.08	Joback Method
dvisc	0.0001238	Pa×s	618.84	Joback Method
dvisc	0.0000893	Pa×s	666.61	Joback Method
dvisc	0.0000673	Pa×s	714.37	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U370608&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