Glutaric acid, 2-ethoxyethyl tetradecyl ester

Inchi: InChI=1S/C23H44O5/c1-3-5-6-7-8-9-10-11-12-13-14-15-19-27-22(24)17-16-18-23(25)28
InchiKey: WBZHVIDXBDPJIP-UHFFFAOYSA-N
Formula: C23H44O5
SMILES: CCCCCCCCCCCCCCOC(=O)CCCC(=O)OCCOCC
Mol. weight [g/mol]: 400.59

Physical Properties

Property code	Value	Unit	Source
gf	-430.06	kJ/mol	Joback Method
hf	-1139.87	kJ/mol	Joback Method
hfus	62.09	kJ/mol	Joback Method
hvap	87.51	kJ/mol	Joback Method
log10ws	-6.26		Crippen Method
logp	5.981		Crippen Method
mcvol	355.680	ml/mol	McGowan Method
pc	890.54	kPa	Joback Method
rinpol	2787.00		NIST Webbook
tb	900.64	K	Joback Method
tc	1103.95	K	Joback Method
tf	515.52	K	Joback Method
vc	1.389	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1186.66	J/mol×K	900.64	Joback Method
cpg	1206.06	J/mol×K	934.53	Joback Method
cpg	1224.02	J/mol×K	968.41	Joback Method
cpg	1240.53	J/mol×K	1002.30	Joback Method
cpg	1255.63	J/mol×K	1036.18	Joback Method
cpg	1269.34	J/mol×K	1070.07	Joback Method
cpg	1281.67	J/mol×K	1103.95	Joback Method
dvisc	0.0004027	Pa×s	515.52	Joback Method
dvisc	0.0001968	Pa×s	579.71	Joback Method

dvisc	0.0001109	Pa×s	643.89	Joback Method
dvisc	0.0000693	Pa×s	708.08	Joback Method
dvisc	0.0000469	Pa×s	772.27	Joback Method
dvisc	0.0000337	Pa×s	836.45	Joback Method
dvisc	0.0000253	Pa×s	900.64	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=U359630&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

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