Glutaric acid, cyclohexylmethyl tetradecyl ester

Inchi: InChI=1S/C26H48O4/c1-2-3-4-5-6-7-8-9-10-11-12-16-22-29-25(27)20-17-21-26(28)30-23

InchiKey: CSDUZVCIQOVARZ-UHFFFAOYSA-N

Formula: C26H48O4

SMILES: CCCCCCCCCCCCCCOC(=O)CCCC(=O)OCC1CCCCC1

Mol. weight [g/mol]: 424.66

Physical Properties

Property code	Value	Unit	Source
gf	-275.35	kJ/mol	Joback Method
hf	-1015.25	kJ/mol	Joback Method
hfus	60.50	kJ/mol	Joback Method
hvap	92.21	kJ/mol	Joback Method
log10ws	-8.08		Crippen Method
logp	7.524		Crippen Method
mcvol	381.220	ml/mol	McGowan Method
pc	856.47	kPa	Joback Method
rinpol	3095.00		NIST Webbook
rinpol	3095.00		NIST Webbook
tb	966.41	K	Joback Method
tc	1184.04	K	Joback Method
tf	534.48	K	Joback Method
vc	1.472	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1342.26	J/mol×K	966.41	Joback Method
cpg	1362.22	J/mol×K	1002.68	Joback Method
cpg	1380.42	J/mol×K	1038.95	Joback Method
cpg	1396.91	J/mol×K	1075.23	Joback Method
cpg	1411.74	J/mol×K	1111.50	Joback Method
cpg	1424.96	J/mol×K	1147.77	Joback Method
cpg	1436.62	J/mol×K	1184.04	Joback Method
dvisc	0.0004565	Pa×s	534.48	Joback Method

dvisc	0.0002044	Pa×s	606.47	Joback Method
dvisc	0.0001085	Pa×s	678.46	Joback Method
dvisc	0.0000650	Pa×s	750.44	Joback Method
dvisc	0.0000426	Pa×s	822.43	Joback Method
dvisc	0.0000299	Pa×s	894.42	Joback Method
dvisc	0.0000221	Pa×s	966.41	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U391638&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