Glutaric acid, dodecyl 2-methoxyethyl ester

Inchi: InChI=1S/C20H38O5/c1-3-4-5-6-7-8-9-10-11-12-16-24-19(21)14-13-15-20(22)25-18-17-2
InchiKey: NVYDJIKBAURWCT-UHFFFAOYSA-N
Formula: C20H38O5
SMILES: CCCCCCCCCCCCOC(=O)CCCC(=O)OCCOC
Mol. weight [g/mol]: 358.51

Physical Properties

Property code	Value	Unit	Source
gf	-455.32	kJ/mol	Joback Method
hf	-1077.95	kJ/mol	Joback Method
hfus	54.32	kJ/mol	Joback Method
hvap	80.84	kJ/mol	Joback Method
log10ws	-5.01		Crippen Method
logp	4.810		Crippen Method
mcvol	313.410	ml/mol	McGowan Method
pc	1065.87	kPa	Joback Method
rinpol	2534.00		NIST Webbook
rinpol	2534.00		NIST Webbook
tb	832.00	K	Joback Method
tc	1019.41	K	Joback Method
tf	481.71	K	Joback Method
vc	1.222	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1000.84	J/mol×K	832.00	Joback Method
cpg	1018.88	J/mol×K	863.24	Joback Method
cpg	1035.80	J/mol×K	894.47	Joback Method
cpg	1051.59	J/mol×K	925.71	Joback Method
cpg	1066.26	J/mol×K	956.94	Joback Method
cpg	1079.84	J/mol×K	988.18	Joback Method
cpg	1092.31	J/mol×K	1019.41	Joback Method
dvisc	0.0005736	Pa×s	481.71	Joback Method

dvisc	0.0002891	Pa×s	540.09	Joback Method
dvisc	0.0001666	Pa×s	598.47	Joback Method
dvisc	0.0001059	Pa×s	656.86	Joback Method
dvisc	0.0000725	Pa×s	715.24	Joback Method
dvisc	0.0000525	Pa×s	773.62	Joback Method
dvisc	0.0000398	Pa×s	832.00	Joback Method

Sources

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=U360109&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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