Glutaric acid, 2-ethylhexyl 10-chlorodecyl ester

Inchi: InChI=1S/C23H43ClO4/c1-3-5-15-21(4-2)20-28-23(26)17-14-16-22(25)27-19-13-11-9-7-6

InchiKey: DEYNNTAXYYUWDP-UHFFFAOYSA-N

Formula: C23H43ClO4

SMILES: CCCCC(CC)COC(=O)CCCC(=O)OCCCCCCCCCCCCl

Mol. weight [g/mol]: 419.04

Physical Properties

Property code	Value	Unit	Source
gf	-339.43	kJ/mol	Joback Method
hf	-1028.67	kJ/mol	Joback Method
hfus	61.57	kJ/mol	Joback Method
hvap	89.10	kJ/mol	Joback Method
log10ws	-7.09		Crippen Method
logp	6.819		Crippen Method
mcvol	362.050	ml/mol	McGowan Method
pc	884.19	kPa	Joback Method
rinpol	2885.00		NIST Webbook
rinpol	2885.00		NIST Webbook
tb	915.21	K	Joback Method
tc	1121.16	K	Joback Method
tf	508.21	K	Joback Method
vc	1.415	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1186.14	J/mol×K	915.21	Joback Method
cpg	1204.81	J/mol×K	949.54	Joback Method
cpg	1222.10	J/mol×K	983.86	Joback Method
cpg	1238.06	J/mol×K	1018.19	Joback Method
cpg	1252.71	J/mol×K	1052.51	Joback Method
cpg	1266.08	J/mol×K	1086.84	Joback Method
cpg	1278.23	J/mol×K	1121.16	Joback Method
dvisc	0.0005261	Pa×s	508.21	Joback Method

dvisc	0.0002381	Pa×s	576.04	Joback Method
dvisc	0.0001273	Pa×s	643.88	Joback Method
dvisc	0.0000767	Pa×s	711.71	Joback Method
dvisc	0.0000505	Pa×s	779.54	Joback Method
dvisc	0.0000355	Pa×s	847.38	Joback Method
dvisc	0.0000263	Pa×s	915.21	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=U392467&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