Glutaric acid, 2,2-dichloroethyl 2-heptyl ester

Inchi: InChI=1S/C14H24Cl2O4/c1-3-4-5-7-11(2)20-14(18)9-6-8-13(17)19-10-12(15)16/h11-12H
InchiKey: LJFUXOZOYMEPGO-UHFFFAOYSA-N
Formula: C14H24Cl2O4
SMILES: CCCCCC(C)OC(=O)CCCC(=O)OCC(Cl)Cl
Mol. weight [g/mol]: 327.24

Physical Properties

Property code	Value	Unit	Source
gf	-429.58	kJ/mol	Joback Method
hf	-863.93	kJ/mol	Joback Method
hfus	38.94	kJ/mol	Joback Method
hvap	73.06	kJ/mol	Joback Method
log10ws	-4.43		Crippen Method
logp	4.016		Crippen Method
mcvol	247.480	ml/mol	McGowan Method
pc	1564.75	kPa	Joback Method
rinpol	1965.00		NIST Webbook
rinpol	1965.00		NIST Webbook
tb	746.28	K	Joback Method
tc	936.02	K	Joback Method
tf	421.70	K	Joback Method
vc	0.954	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	682.41	J/mol×K	746.28	Joback Method
cpg	696.76	J/mol×K	777.90	Joback Method
cpg	710.26	J/mol×K	809.53	Joback Method
cpg	722.93	J/mol×K	841.15	Joback Method
cpg	734.78	J/mol×K	872.77	Joback Method
cpg	745.80	J/mol×K	904.40	Joback Method
cpg	756.02	J/mol×K	936.02	Joback Method
dvisc	0.0014066	Pa×s	421.70	Joback Method

dvisc	0.0006641	Pa×s	475.80	Joback Method
dvisc	0.0003655	Pa×s	529.89	Joback Method
dvisc	0.0002247	Pa×s	583.99	Joback Method
dvisc	0.0001500	Pa×s	638.09	Joback Method
dvisc	0.0001067	Pa×s	692.18	Joback Method
dvisc	0.0000797	Pa×s	746.28	Joback Method

Sources

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=U393582&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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