Glutaric acid, 2,2-dichloroethyl (2-naphthyl)methyl ester

Inchi: InChI=1S/C18H18Cl2O4/c19-16(20)12-24-18(22)7-3-6-17(21)23-11-13-8-9-14-4-1-2-5-15

InchiKey: RPWQRMHKPIYLMV-UHFFFAOYSA-N

Formula: C18H18Cl2O4

SMILES: O=C(CCCC(=O)OCC(Cl)Cl)OCc1ccc2ccccc2c1

Mol. weight [g/mol]: 369.24

Physical Properties

Property code	Value	Unit	Source
gf	-184.03	kJ/mol	Joback Method
hf	-525.08	kJ/mol	Joback Method
hfus	43.49	kJ/mol	Joback Method
hvap	86.93	kJ/mol	Joback Method
log10ws	-5.72		Crippen Method
logp	4.400		Crippen Method
mcvol	260.620	ml/mol	McGowan Method
pc	1796.98	kPa	Joback Method
rinpol	2850.00		NIST Webbook
rinpol	2850.00		NIST Webbook
tb	888.88	K	Joback Method
tc	1115.27	K	Joback Method
tf	553.42	K	Joback Method
vc	0.998	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	735.73	J/mol×K	888.88	Joback Method
cpg	747.57	J/mol×K	926.61	Joback Method
cpg	758.39	J/mol×K	964.34	Joback Method
cpg	768.25	J/mol×K	1002.07	Joback Method
cpg	777.22	J/mol×K	1039.81	Joback Method
cpg	785.34	J/mol×K	1077.54	Joback Method
cpg	792.67	J/mol×K	1115.27	Joback Method
dvisc	0.0006725	Pa×s	553.42	Joback Method

dvisc	0.0004222	Pa×s	609.33	Joback Method
dvisc	0.0002867	Pa×s	665.24	Joback Method
dvisc	0.0002067	Pa×s	721.15	Joback Method
dvisc	0.0001562	Pa×s	777.06	Joback Method
dvisc	0.0001226	Pa×s	832.97	Joback Method
dvisc	0.0000992	Pa×s	888.88	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=U392199&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