Glutaric acid, 2,2-dichloroethyl diphenylmethyl ester

Inchi: InChI=1S/C20H20Cl2O4/c21-17(22)14-25-18(23)12-7-13-19(24)26-20(15-8-3-1-4-9-15)16

InchiKey: PFXPMXQLJJAOLO-UHFFFAOYSA-N

Formula: C20H20Cl2O4

SMILES: O=C(CCCC(=O)OC(c1ccccc1)c1ccccc1)OCC(Cl)Cl

Mol. weight [g/mol]: 395.28

Physical Properties

Property code	Value	Unit	Source
gf	-154.24	kJ/mol	Joback Method
hf	-514.71	kJ/mol	Joback Method
hfus	42.56	kJ/mol	Joback Method
hvap	90.97	kJ/mol	Joback Method
log10ws	-5.60		Crippen Method
logp	4.836		Crippen Method
mcvol	284.500	ml/mol	McGowan Method
pc	1676.91	kPa	Joback Method
rinpol	2783.00		NIST Webbook
rinpol	2783.00		NIST Webbook
tb	936.92	K	Joback Method
tc	1172.40	K	Joback Method
tf	542.16	K	Joback Method
vc	1.073	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	828.57	J/mol×K	936.92	Joback Method
cpg	874.65	J/mol×K	1133.16	Joback Method
cpg	867.81	J/mol×K	1093.91	Joback Method
cpg	859.84	J/mol×K	1054.66	Joback Method
cpg	850.69	J/mol×K	1015.41	Joback Method
cpg	840.28	J/mol×K	976.17	Joback Method
cpg	880.43	J/mol×K	1172.40	Joback Method
dvisc	0.0000338	Pa×s	936.92	Joback Method

dvisc	0.0000445	Pa×s	871.13	Joback Method
dvisc	0.0000613	Pa×s	805.33	Joback Method
dvisc	0.0000894	Pa×s	739.54	Joback Method
dvisc	0.0001404	Pa×s	673.75	Joback Method
dvisc	0.0002429	Pa×s	607.95	Joback Method
dvisc	0.0004804	Pa×s	542.16	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=U393342&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