Glutaric acid, hept-2-yl diphenylmethyl ester

Inchi: InChI=1S/C25H32O4/c1-3-4-7-13-20(2)28-23(26)18-12-19-24(27)29-25(21-14-8-5-9-15-2
InchiKey: QIMGWYNZEPQLDB-UHFFFAOYSA-N
Formula: C25H32O4
SMILES: CCCCCC(C)OC(=O)CCCC(=O)OC(c1ccccc1)c1ccccc1
Mol. weight [g/mol]: 396.52

Physical Properties

Property code	Value	Unit	Source
gf	-88.28	kJ/mol	Joback Method
hf	-586.43	kJ/mol	Joback Method
hfus	47.12	kJ/mol	Joback Method
hvap	93.33	kJ/mol	Joback Method
log10ws	-6.89		Crippen Method
logp	6.002		Crippen Method
mcvol	330.470	ml/mol	McGowan Method
pc	1232.88	kPa	Joback Method
rinpol	2808.00		NIST Webbook
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tb	976.46	K	Joback Method
tc	1202.47	K	Joback Method
tf	538.67	K	Joback Method
vc	1.256	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1078.81	J/mol×K	976.46	Joback Method
cpg	1138.45	J/mol×K	1164.80	Joback Method
cpg	1129.15	J/mol×K	1127.13	Joback Method
cpg	1118.61	J/mol×K	1089.46	Joback Method
cpg	1106.75	J/mol×K	1051.80	Joback Method
cpg	1093.50	J/mol×K	1014.13	Joback Method
cpg	1146.56	J/mol×K	1202.47	Joback Method
dvisc	0.0000222	Pa×s	976.46	Joback Method

dvisc	0.0000298	Pa×s	903.50	Joback Method
dvisc	0.0000420	Pa×s	830.53	Joback Method
dvisc	0.0000634	Pa×s	757.57	Joback Method
dvisc	0.0001043	Pa×s	684.60	Joback Method
dvisc	0.0001934	Pa×s	611.64	Joback Method
dvisc	0.0004239	Pa×s	538.67	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U393344&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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

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