Glutaric acid, di(4-methylpent-2-yl) ester

Other names: di-(1,3-Dimethylbutyl)glutarate
Inchi: InChI=1S/C17H32O4/c1-12(2)10-14(5)20-16(18)8-7-9-17(19)21-15(6)11-13(3)4/h12-15H
InchiKey: GMJVGVRJFOPHTR-UHFFFAOYSA-N
Formula: C17H32O4
SMILES: CC(C)CC(C)OC(=O)CCCC(=O)OC(C)CC(C)C
Mol. weight [g/mol]: 300.43

Physical Properties

Property code	Value	Unit	Source
gf	-385.34	kJ/mol	Joback Method
hf	-904.93	kJ/mol	Joback Method
hfus	31.27	kJ/mol	Joback Method
hvap	70.20	kJ/mol	Joback Method
log10ws	-4.40		Crippen Method
logp	4.112		Crippen Method
mcvol	265.270	ml/mol	McGowan Method
pc	1345.70	kPa	Joback Method
rinpol	1756.00		NIST Webbook
rinpol	1756.00		NIST Webbook
rinpol	1830.00		NIST Webbook
rinpol	1830.00		NIST Webbook
tb	739.18	K	Joback Method
tc	923.55	K	Joback Method
tf	365.67	K	Joback Method
vc	1.012	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	792.97	J/mol×K	739.18	Joback Method
cpg	810.71	J/mol×K	769.91	Joback Method
cpg	827.49	J/mol×K	800.64	Joback Method
cpg	843.31	J/mol×K	831.36	Joback Method
cpg	858.18	J/mol×K	862.09	Joback Method

cpg	872.12	J/mol×K	892.82	Joback Method
cpg	885.13	J/mol×K	923.55	Joback Method
dvisc	0.0028079	Pa×s	365.67	Joback Method
dvisc	0.0009221	Pa×s	427.92	Joback Method
dvisc	0.0004018	Pa×s	490.17	Joback Method
dvisc	0.0002111	Pa×s	552.42	Joback Method
dvisc	0.0001264	Pa×s	614.68	Joback Method
dvisc	0.0000831	Pa×s	676.93	Joback Method
dvisc	0.0000587	Pa×s	739.18	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=U359393&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

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