Succinic acid, 4-methylbenzyl octadecyl ester

Inchi: InChI=1S/C30H50O4/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-25-33-29(31)23-24-3
InchiKey: FBKGMMVLIZQABM-UHFFFAOYSA-N
Formula: C30H50O4
SMILES: CCCCCCCCCCCCCCCCCCOC(=O)CCC(=O)OCc1ccc(C)cc1
Mol. weight [g/mol]: 474.72

Physical Properties

Property code	Value	Unit	Source
gf	-163.34	kJ/mol	Joback Method
hf	-927.07	kJ/mol	Joback Method
hfus	72.68	kJ/mol	Joback Method
hvap	103.62	kJ/mol	Joback Method
log10ws	-9.76		Crippen Method
logp	8.623		Crippen Method
mcvol	424.680	ml/mol	McGowan Method
pc	734.42	kPa	Joback Method
rinpol	3436.00		NIST Webbook
rinpol	3436.00		NIST Webbook
tb	1070.04	K	Joback Method
tc	1324.57	K	Joback Method
tf	611.12	K	Joback Method
vc	1.655	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1496.84	J/mol×K	1070.04	Joback Method
cpg	1515.88	J/mol×K	1112.46	Joback Method
cpg	1532.83	J/mol×K	1154.88	Joback Method
cpg	1547.78	J/mol×K	1197.31	Joback Method
cpg	1560.83	J/mol×K	1239.73	Joback Method
cpg	1572.09	J/mol×K	1282.15	Joback Method
cpg	1581.64	J/mol×K	1324.57	Joback Method
dvisc	0.0001828	Pa×s	611.12	Joback Method

dvisc	0.0000907	Pa×s	687.61	Joback Method
dvisc	0.0000517	Pa×s	764.09	Joback Method
dvisc	0.0000327	Pa×s	840.58	Joback Method
dvisc	0.0000223	Pa×s	917.07	Joback Method
dvisc	0.0000161	Pa×s	993.55	Joback Method
dvisc	0.0000122	Pa×s	1070.04	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U381067&Units=SI

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

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