

Succinic acid, cyclohexylmethyl 2-decyl ester

Inchi:	InChI=1S/C21H38O4/c1-3-4-5-6-7-9-12-18(2)25-21(23)16-15-20(22)24-17-19-13-10-8-1
InchiKey:	KWXGRCXXBPEPRK-UHFFFAOYSA-N
Formula:	C21H38O4
SMILES:	CCCCCCCCC(C)OC(=O)CCC(=O)OCC1CCCCC1
Mol. weight [g/mol]:	354.52

Physical Properties

Property code	Value	Unit	Source
gf	-319.89	kJ/mol	Joback Method
hf	-917.33	kJ/mol	Joback Method
hfus	44.03	kJ/mol	Joback Method
hvap	80.69	kJ/mol	Joback Method
log10ws	-6.10		Crippen Method
logp	5.572		Crippen Method
mvol	310.770	ml/mol	McGowan Method
pc	1165.63	kPa	Joback Method
rinpol	2461.00		NIST Webbook
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tb	851.57	K	Joback Method
tc	1050.20	K	Joback Method
tf	463.13	K	Joback Method
vc	1.187	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1028.11	J/molxK	851.57	Joback Method
cpg	1047.25	J/molxK	884.68	Joback Method
cpg	1065.01	J/molxK	917.78	Joback Method
cpg	1081.44	J/molxK	950.89	Joback Method
cpg	1096.55	J/molxK	983.99	Joback Method
cpg	1110.37	J/molxK	1017.10	Joback Method
cpg	1122.92	J/molxK	1050.20	Joback Method
dvisc	0.0010048	Paxs	463.13	Joback Method

dvisc	0.0004321	Paxs	527.87	Joback Method
dvisc	0.0002235	Paxs	592.61	Joback Method
dvisc	0.0001316	Paxs	657.35	Joback Method
dvisc	0.0000852	Paxs	722.09	Joback Method
dvisc	0.0000593	Paxs	786.83	Joback Method
dvisc	0.0000436	Paxs	851.57	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U390535&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

cp_g:	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:	Log ₁₀ of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
m_{cvol}:	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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