

Succinic acid, di(cyclopentyl) ester

Inchi:	InChI=1S/C14H22O4/c15-13(17-11-5-1-2-6-11)9-10-14(16)18-12-7-3-4-8-12/h11-12H,1-
InchiKey:	FWRFEGHSSFFLMN-UHFFFAOYSA-N
Formula:	C14H22O4
SMILES:	O=C(CCC(=O)OC1CCCC1)OC1CCCC1
Mol. weight [g/mol]:	254.32

Physical Properties

Property code	Value	Unit	Source
gf	-327.74	kJ/mol	Joback Method
hf	-700.93	kJ/mol	Joback Method
hfus	25.46	kJ/mol	Joback Method
hvap	65.58	kJ/mol	Joback Method
log10ws	-3.42		Crippen Method
logp	2.738		Crippen Method
mcvol	201.280	ml/mol	McGowan Method
pc	2246.13	kPa	Joback Method
rinsol	1882.00		NIST Webbook
tb	702.86	K	Joback Method
tc	920.48	K	Joback Method
tf	413.66	K	Joback Method
vc	0.750	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	604.16	J/molxK	702.86	Joback Method
cpg	623.17	J/molxK	739.13	Joback Method
cpg	640.87	J/molxK	775.40	Joback Method
cpg	657.29	J/molxK	811.67	Joback Method
cpg	672.47	J/molxK	847.94	Joback Method
cpg	686.43	J/molxK	884.21	Joback Method
cpg	699.21	J/molxK	920.48	Joback Method
dvisc	0.0021802	Paxs	413.66	Joback Method
dvisc	0.0012557	Paxs	461.86	Joback Method

dvisc	0.0008027	Paxs	510.06	Joback Method
dvisc	0.0005543	Paxs	558.26	Joback Method
dvisc	0.0004060	Paxs	606.46	Joback Method
dvisc	0.0003113	Paxs	654.66	Joback Method
dvisc	0.0002476	Paxs	702.86	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U391388&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
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

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