2,5-Furandione, 3-(2-decenyl)dihydro-

Other names:	2-Decenylsuccinic anhydride
	Decenyl succinic anhydride
	Succinic anhydride, 2-(2-decenyl)-
	3-(2-Decenyl)dihydro-2,5-furandione
Inchi:	InChI=1S/C14H22O3/c1-2-3-4-5-6-7-8-9-10-12-11-13(15)17-14(12)16/h8-9,12H,2-7,10-1
InchiKey:	GDXGTHFUAURIFL-CMDGGOBGSA-N
Formula:	C14H22O3
SMILES:	CCCCCCCC=CCC1CC(=O)OC1=O
Mol. weight [g/mol]:	238.32
CAS:	62568-81-4

Physical Properties

Property code	Value	Unit	Source
gf	-147.53	kJ/mol	Joback Method
hf	-561.99	kJ/mol	Joback Method
hfus	33.15	kJ/mol	Joback Method
hvap	59.98	kJ/mol	Joback Method
log10ws	-3.83		Crippen Method
logp	3.383		Crippen Method
mcvol	201.970	ml/mol	McGowan Method
pc	1942.37	kPa	Joback Method
tb	701.75	K	Joback Method
tc	914.04	K	Joback Method
tf	416.37	K	Joback Method
vc	0.775	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	592.28	J/mol×K	701.75	Joback Method
cpg	610.48	J/mol×K	737.13	Joback Method
cpg	627.60	J/mol×K	772.51	Joback Method
cpg	643.65	J/mol×K	807.90	Joback Method
cpg	658.62	J/mol×K	843.28	Joback Method

cpg	672.53	J/mol×K	878.66	Joback Method
cpg	685.36	J/mol×K	914.04	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C62568814&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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume