

1-Octenylsuccinic anhydride

Other names:	n-Octenylsuccinic anhydride 2,5-Furandione, dihydro-3-(octenyl)- Milldride OSA Octenyl succinic anhydride dihydro-3-(octenyl)furan-2,5-dione
Inchi:	InChI=1S/C12H18O3/c1-2-3-4-5-6-7-8-10-9-11(13)15-12(10)14/h7-8,10H,2-6,9H2,1H3/b
InchiKey:	FLISWPFVWWWNNP-BQYQJAHWSA-N
Formula:	C12H18O3
SMILES:	CCCCCCC=CC1CC(=O)OC1=O
Mol. weight [g/mol]:	210.27
CAS:	26680-54-6

Physical Properties

Property code	Value	Unit	Source
gf	-164.37	kJ/mol	Joback Method
hf	-520.71	kJ/mol	Joback Method
hfus	27.97	kJ/mol	Joback Method
hvap	55.52	kJ/mol	Joback Method
log10ws	-2.99		Crippen Method
logp	2.603		Crippen Method
mcvol	173.790	ml/mol	McGowan Method
pc	2318.07	kPa	Joback Method
tb	655.99	K	Joback Method
tc	875.16	K	Joback Method
tf	393.83	K	Joback Method
vc	0.663	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	484.42	J/molxK	655.99	Joback Method
cpg	501.86	J/molxK	692.52	Joback Method
cpg	518.32	J/molxK	729.05	Joback Method
cpg	533.77	J/molxK	765.57	Joback Method

cpg	548.23	J/mol×K	802.10	Joback Method
cpg	561.68	J/mol×K	838.63	Joback Method
cpg	574.11	J/mol×K	875.16	Joback Method

Sources

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=C26680546&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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

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