

2(3H)-Furanone, dihydro-5-tetradecyl-

Other names:

«gamma»-Stearolactone
Octadecanoic acid, 4-hydroxy-, «gamma»-lactone
4-Octadecanolide
Dihydro-5-tetradecyl-2(3H)-furanone
«gamma»-n-Tetradecyl-«gamma»-butanolide

Inchi:

InChI=1S/C18H34O2/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-17-15-16-18(19)20-17/h17H,2-

InchiKey:

GYDWWIHJZSCRGV-UHFFFAOYSA-N

Formula:

C18H34O2

SMILES:

CCCCCCCCCCCCCCC1CCC(=O)O1

Mol. weight [g/mol]:

282.46

CAS:

502-26-1

Physical Properties

Property code	Value	Unit	Source
gf	-71.48	kJ/mol	Joback Method
hf	-624.07	kJ/mol	Joback Method
hfus	43.80	kJ/mol	Joback Method
hvap	64.68	kJ/mol	Joback Method
log10ws	-6.23		Crippen Method
logp	5.783		Crippen Method
mcvol	261.060	ml/mol	McGowan Method
pc	1331.98	kPa	Joback Method
tb	721.29	K	Joback Method
tc	908.87	K	Joback Method
tf	398.31	K	Joback Method
vc	1.012	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	803.56	J/mol×K	721.29	Joback Method
cpg	824.05	J/mol×K	752.55	Joback Method
cpg	843.45	J/mol×K	783.82	Joback Method
cpg	861.80	J/mol×K	815.08	Joback Method

cpg	879.12	J/mol×K	846.34	Joback Method
cpg	895.42	J/mol×K	877.61	Joback Method
cpg	910.73	J/mol×K	908.87	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C502261&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
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvp:	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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