2(3H)-Furanone, 5-hexyldihydro-

Other names:	(.+/-.)-«gamma»-Decanolactone
	.gamma.-decalactone
	4-Decalactone
	4-Hexyl-4-butanolide
	4-Hexyl-«gamma»-butyrolactone
	4-Hydroxydecanoic acid lactone
	4-Hydroxydecanoic acid, «gamma»-lactone
	4-decanolide
	4-hydroxydecanoic acid .gamma.-lactone
	5-Hexyldihydro-2(3H)-furanone
	5-Hexyltetrahydro-2-furanone
	Decan-4-olide
	Decanoic acid, 4-hydroxy-, «gamma»-lactone
	Decanoic acid, «gamma»-lactone
	Decanolactone
	Decanolide-1,4
	Hydroxydecanoic acid «gamma»-lactone
	NSC 24248
	NSC 26510
	«gamma»-Decalactone
	«gamma»-Decanolactone
	«gamma»-Decanolide
	«gamma»-Hexyl-«gamma»-butyrolactone
	«gamma»-Hexylbutyrolactone
	«gamma»-n-Decalactone
	«gamma»-n-Hexyl-«gamma»-butyrolactone
Inchi:	InChI=1S/C10H18O2/c1-2-3-4-5-6-9-7-8-10(11)12-9/h9H,2-8H2,1H3
InchiKey:	IFYYFLINQYPWGJ-UHFFFAOYSA-N
Formula:	C10H18O2
SMILES:	CCCCCCC1CCC(=O)O1
Mol. weight [g/mol]:	170.25
CAS:	706-14-9

Physical Properties

Property code	Value	Unit	Source
gf	-138.84	kJ/mol	Joback Method

hf	-496.00 ± 3.00	kJ/mol	NIST Webbook
hfl	-559.00 ± 2.00	kJ/mol	NIST Webbook
hfus	23.08	kJ/mol	Joback Method
hvap	63.00	kJ/mol	NIST Webbook
hvap	63.00 ± 1.00	kJ/mol	NIST Webbook
hvap	75.60 ± 0.30	kJ/mol	NIST Webbook
log10ws	-2.88		Crippen Method
logp	2.662		Crippen Method
mcvol	148.340	ml/mol	McGowan Method
pc	2571.50	kPa	Joback Method
rinpol	1463.00		NIST Webbook
rinpol	1494.00		NIST Webbook
rinpol	1465.00		NIST Webbook
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ripol	2136.00		NIST Webbook
ripol	2139.00		NIST Webbook
ripol	2136.00		NIST Webbook
tb	538.25	K	Joback Method
tc	742.73	K	Joback Method
tf	308.15	K	Joback Method
vc	0.565	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	370.23	J/mol×K	538.25	Joback Method
cpg	387.45	J/mol×K	572.33	Joback Method
cpg	403.86	J/mol×K	606.41	Joback Method
cpg	419.47	J/mol×K	640.49	Joback Method
cpg	434.30	J/mol×K	674.57	Joback Method
cpg	448.34	J/mol×K	708.65	Joback Method
cpg	461.59	J/mol×K	742.73	Joback Method

hvapt	75.00	kJ/mol	298.15	Vapor pressures and enthalpies of vaporization of a series of .gamma. and .delta.-lactones by correlation gas chromatography
pvap	3.39e-03	kPa	322.90	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	5.60e-04	kPa	303.30	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	8.80e-04	kPa	308.20	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	1.46e-03	kPa	313.10	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	1.44e-03	kPa	313.40	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	2.14e-03	kPa	318.20	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	2.33e-03	kPa	318.20	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	3.50e-04	kPa	298.40	Vapour pressures and enthalpies of vapourization of a series of the c-lactones

pvap	3.45e-03	kPa	323.20	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	5.32e-03	kPa	328.10	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	5.23e-03	kPa	328.20	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	7.65e-03	kPa	333.00	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	7.91e-03	kPa	333.20	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	0.01	kPa	338.10	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	0.01	kPa	338.70	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	0.02	kPa	343.20	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	0.02	kPa	343.90	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	0.02	kPa	348.20	Vapour pressures and enthalpies of vapourization of a series of the c-lactones

pvap	0.03	kPa	349.40	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	0.03	kPa	353.30	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	0.04	kPa	354.80	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	0.05	kPa	360.30	Vapour pressures and enthalpies of vapourization of a series of the c-lactones
pvap	0.07	kPa	365.00	Vapour pressures and enthalpies of vapourization of a series of the c-lactones

Sources

Vapor pressures and enthalpies of vaporization of a series of .gamma. and .delta. lactones by correlation gas chromatography:	https://www.doi.org/10.1016/j.jct.2014.01.016
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=C706149&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Vapour pressures and enthalpies of vapourization of a series of the c-lactones:	https://www.doi.org/10.1016/j.jct.2008.02.002

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions

hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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