

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	75.60 ± 0.30	kJ/mol	NIST Webbook
hvap	63.00 ± 1.00	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	1445.00		NIST Webbook
rinpol	1429.00		NIST Webbook
rinpol	1437.00		NIST Webbook
rinpol	1439.00		NIST Webbook
rinpol	1437.00		NIST Webbook
rinpol	1437.00		NIST Webbook
rinpol	1475.00		NIST Webbook
rinpol	1454.00		NIST Webbook
rinpol	1470.00		NIST Webbook
rinpol	1462.00		NIST Webbook
rinpol	1428.00		NIST Webbook
rinpol	1430.00		NIST Webbook
rinpol	1476.00		NIST Webbook
rinpol	1477.00		NIST Webbook
rinpol	1470.00		NIST Webbook
rinpol	1435.00		NIST Webbook
rinpol	1422.00		NIST Webbook
rinpol	1429.00		NIST Webbook
rinpol	1429.00		NIST Webbook
rinpol	1487.00		NIST Webbook
rinpol	1476.00		NIST Webbook
rinpol	1418.00		NIST Webbook
rinpol	1418.00		NIST Webbook
rinpol	1466.00		NIST Webbook
rinpol	1475.00		NIST Webbook
rinpol	1423.00		NIST Webbook
rinpol	1416.00		NIST Webbook
rinpol	1467.00		NIST Webbook
rinpol	1467.00		NIST Webbook
rinpol	1448.00		NIST Webbook
rinpol	1468.00		NIST Webbook
rinpol	1472.00		NIST Webbook
rinpol	1472.00		NIST Webbook

rinpol	1470.00	NIST Webbook
rinpol	1472.00	NIST Webbook
rinpol	1450.00	NIST Webbook
rinpol	1467.00	NIST Webbook
rinpol	1470.00	NIST Webbook
rinpol	1462.00	NIST Webbook
rinpol	1472.00	NIST Webbook
rinpol	1465.00	NIST Webbook
rinpol	1462.00	NIST Webbook
rinpol	1470.00	NIST Webbook
rinpol	1472.60	NIST Webbook
rinpol	1474.00	NIST Webbook
rinpol	1476.00	NIST Webbook
rinpol	1504.00	NIST Webbook
rinpol	1503.00	NIST Webbook
rinpol	1478.00	NIST Webbook
rinpol	1431.00	NIST Webbook
rinpol	1463.00	NIST Webbook
rinpol	1472.00	NIST Webbook
rinpol	1414.60	NIST Webbook
rinpol	1472.00	NIST Webbook
rinpol	1468.00	NIST Webbook
rinpol	1494.00	NIST Webbook
rinpol	1470.00	NIST Webbook
rinpol	1486.00	NIST Webbook
rinpol	1485.00	NIST Webbook
rinpol	1490.00	NIST Webbook
rinpol	1465.00	NIST Webbook
rinpol	1418.00	NIST Webbook
rinpol	1425.00	NIST Webbook
rinpol	1463.00	NIST Webbook
rinpol	1422.00	NIST Webbook
rinpol	1428.00	NIST Webbook
rinpol	1424.00	NIST Webbook
rinpol	1422.00	NIST Webbook
rinpol	1423.00	NIST Webbook
rinpol	1419.00	NIST Webbook
rinpol	1428.00	NIST Webbook
rinpol	1431.40	NIST Webbook
rinpol	1470.00	NIST Webbook
rinpol	1470.00	NIST Webbook
rinpol	1418.00	NIST Webbook
rinpol	1465.00	NIST Webbook
rinpol	1494.00	NIST Webbook

ripol	1437.00	NIST Webbook
ripol	1470.00	NIST Webbook
ripol	1435.00	NIST Webbook
ripol	1431.40	NIST Webbook
ripol	2129.00	NIST Webbook
ripol	2130.00	NIST Webbook
ripol	2090.00	NIST Webbook
ripol	2125.00	NIST Webbook
ripol	2155.00	NIST Webbook
ripol	2155.00	NIST Webbook
ripol	2173.00	NIST Webbook
ripol	2177.00	NIST Webbook
ripol	2132.00	NIST Webbook
ripol	2101.00	NIST Webbook
ripol	2162.00	NIST Webbook
ripol	2109.00	NIST Webbook
ripol	2129.00	NIST Webbook
ripol	2144.00	NIST Webbook
ripol	2149.00	NIST Webbook
ripol	2138.00	NIST Webbook
ripol	2136.00	NIST Webbook
ripol	2158.00	NIST Webbook
ripol	2100.00	NIST Webbook
ripol	2101.00	NIST Webbook
ripol	2155.00	NIST Webbook
ripol	2101.00	NIST Webbook
ripol	2131.00	NIST Webbook
ripol	2137.00	NIST Webbook
ripol	2100.00	NIST Webbook
ripol	2183.00	NIST Webbook
ripol	2141.00	NIST Webbook
ripol	2103.00	NIST Webbook
ripol	2131.00	NIST Webbook
ripol	2137.00	NIST Webbook
ripol	2183.00	NIST Webbook
ripol	2100.00	NIST Webbook
ripol	2141.00	NIST Webbook
ripol	2139.00	NIST Webbook
ripol	2160.00	NIST Webbook
ripol	2094.00	NIST Webbook
ripol	2145.00	NIST Webbook
ripol	2131.00	NIST Webbook
ripol	2142.00	NIST Webbook
ripol	2170.00	NIST Webbook

ripol	2123.00	NIST Webbook
ripol	2109.00	NIST Webbook
ripol	2109.00	NIST Webbook
ripol	2178.00	NIST Webbook
ripol	2130.00	NIST Webbook
ripol	2165.00	NIST Webbook
ripol	2130.00	NIST Webbook
ripol	2162.00	NIST Webbook
ripol	2164.00	NIST Webbook
ripol	2127.00	NIST Webbook
ripol	2125.00	NIST Webbook
ripol	2152.00	NIST Webbook
ripol	2160.00	NIST Webbook
ripol	2165.00	NIST Webbook
ripol	2126.00	NIST Webbook
ripol	2145.00	NIST Webbook
ripol	2165.00	NIST Webbook
ripol	2132.00	NIST Webbook
ripol	2152.00	NIST Webbook
ripol	2178.00	NIST Webbook
ripol	2144.00	NIST Webbook
ripol	2185.00	NIST Webbook
ripol	2175.00	NIST Webbook
ripol	2141.00	NIST Webbook
ripol	2110.00	NIST Webbook
ripol	2131.00	NIST Webbook
ripol	2183.00	NIST Webbook
ripol	2138.00	NIST Webbook
ripol	2140.00	NIST Webbook
ripol	2140.00	NIST Webbook
ripol	2149.00	NIST Webbook
ripol	2106.00	NIST Webbook
ripol	2140.00	NIST Webbook
ripol	2179.00	NIST Webbook
ripol	2110.00	NIST Webbook
ripol	2138.00	NIST Webbook
ripol	2135.00	NIST Webbook
ripol	2127.00	NIST Webbook
ripol	2158.00	NIST Webbook
ripol	2151.00	NIST Webbook
ripol	2185.00	NIST Webbook
ripol	2116.00	NIST Webbook
ripol	2153.00	NIST Webbook
ripol	2136.00	NIST Webbook

ripol	2136.00		NIST Webbook
ripol	2136.00		NIST Webbook
ripol	2131.00		NIST Webbook
ripol	2138.00		NIST Webbook
ripol	2137.00		NIST Webbook
ripol	2142.00		NIST Webbook
ripol	2139.00		NIST Webbook
ripol	2103.00		NIST Webbook
ripol	2149.00		NIST Webbook
ripol	2126.00		NIST Webbook
ripol	2144.00		NIST Webbook
ripol	2136.00		NIST Webbook
ripol	2136.00		NIST Webbook
ripol	2144.00		NIST Webbook
ripol	2096.00		NIST Webbook
ripol	2153.00		NIST Webbook
ripol	2151.00		NIST Webbook
ripol	2113.00		NIST Webbook
ripol	2098.00		NIST Webbook
ripol	2101.00		NIST Webbook
ripol	2143.00		NIST Webbook
ripol	2138.00		NIST Webbook
ripol	2177.00		NIST Webbook
tb	538.25	K	Joback Method
tc	742.73	K	Joback Method
tf	308.15	K	Joback Method
vc	0.565	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	461.59	J/mol×K	742.73	Joback Method
cpg	448.34	J/mol×K	708.65	Joback Method
cpg	434.30	J/mol×K	674.57	Joback Method
cpg	419.47	J/mol×K	640.49	Joback Method
cpg	403.86	J/mol×K	606.41	Joback Method
cpg	387.45	J/mol×K	572.33	Joback Method
cpg	370.23	J/mol×K	538.25	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	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	2.33e-03	kPa	318.20	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
pvap	2.14e-03	kPa	318.20	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	1.46e-03	kPa	313.10	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	5.60e-04	kPa	303.30	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	0.01	kPa	338.70	Vapour pressures and enthalpies of vapourization of a series of the c-lactones

Sources

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
Vapour 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

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
rinpolar:	Non-polar retention indices
ripolar:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:

<https://www.cheméo.com/cid/42-559-5/2-3H-Furanone-5-hexyldihydro.pdf>

Generated by Cheméo on 2024-04-24 01:52:15.738269983 +0000 UTC m=+16212784.658847296.

Cheméo (<https://www.cheméo.com>) is the biggest free database of chemical and physical data for the process industry.