

# 3(2H)-Furanone, dihydro-2-methyl-

<b>Other names:</b>	Dihydro-2-methyl-3(2H)-furanone Dihydro-2-methyl-3-furanone 2-Methyl-3-ketotetrahydrofuran 2-Methyl-4,5-dihydro-3(2H)-furanone 2-Methyltetrahydrofuran-3-one 2-Methyl-3(2H)-dihydrofuranone 2-Methyl-3-oxo-tetrahydrofuran 2-Methyl-3-tetrahydrofuranone 2-Methyl-4,5-dihydro-furan-3-one 2-Methyl-dihydro-(2H)-furan-3-one 2-Methyloxolan-3-one 2-Methyltetrahydro-3-furanone Dihydro-2-methyl-3(2H)-furanone 2-Methyldihydro-2(3H)-furanone 2-Methyl-dihydro-3(H)-Furanone 2-Methyldihydro-3(2H)furanone
<b>Inchi:</b>	InChI=1S/C5H8O2/c1-4-5(6)2-3-7-4/h4H,2-3H2,1H3
<b>InchiKey:</b>	FCWYQRVIQDNGBI-UHFFFAOYSA-N
<b>Formula:</b>	C5H8O2
<b>SMILES:</b>	CC1OCCC1=O
<b>Mol. weight [g/mol]:</b>	100.12
<b>CAS:</b>	3188-00-9

## Physical Properties

Property code	Value	Unit	Source
gf	-180.94	kJ/mol	Joback Method
hf	-355.75	kJ/mol	Joback Method
hfus	10.13	kJ/mol	Joback Method
hvap	35.74	kJ/mol	Joback Method
log10ws	-0.29		Crippen Method
logp	0.364		Crippen Method
mcvol	77.890	ml/mol	McGowan Method
pc	4492.23	kPa	Joback Method
rinpol	812.00		NIST Webbook
rinpol	808.00		NIST Webbook
rinpol	806.00		NIST Webbook
rinpol	810.00		NIST Webbook

rinpol	775.00	NIST Webbook
rinpol	775.00	NIST Webbook
rinpol	806.00	NIST Webbook
rinpol	810.00	NIST Webbook
rinpol	806.00	NIST Webbook
rinpol	774.00	NIST Webbook
rinpol	770.00	NIST Webbook
rinpol	781.00	NIST Webbook
rinpol	781.00	NIST Webbook
rinpol	779.00	NIST Webbook
rinpol	780.00	NIST Webbook
rinpol	780.00	NIST Webbook
rinpol	804.00	NIST Webbook
rinpol	807.00	NIST Webbook
rinpol	816.00	NIST Webbook
rinpol	819.00	NIST Webbook
rinpol	812.00	NIST Webbook
rinpol	806.00	NIST Webbook
rinpol	774.00	NIST Webbook
rinpol	821.00	NIST Webbook
rinpol	812.00	NIST Webbook
rinpol	775.00	NIST Webbook
rinpol	776.00	NIST Webbook
rinpol	773.00	NIST Webbook
rinpol	751.00	NIST Webbook
rinpol	776.00	NIST Webbook
rinpol	812.00	NIST Webbook
rinpol	768.10	NIST Webbook
rinpol	817.00	NIST Webbook
rinpol	804.00	NIST Webbook
rinpol	805.00	NIST Webbook
rinpol	768.10	NIST Webbook
rinpol	782.00	NIST Webbook
rinpol	777.00	NIST Webbook
rinpol	760.00	NIST Webbook
rinpol	808.00	NIST Webbook
rinpol	781.00	NIST Webbook
rinpol	810.00	NIST Webbook
ripol	1283.00	NIST Webbook
ripol	1267.00	NIST Webbook
ripol	1271.00	NIST Webbook
ripol	1277.00	NIST Webbook
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ripol	1242.00	NIST Webbook
ripol	1259.00	NIST Webbook
ripol	1304.00	NIST Webbook
ripol	1286.00	NIST Webbook
ripol	1269.00	NIST Webbook
ripol	1260.00	NIST Webbook
ripol	1251.00	NIST Webbook
ripol	1249.00	NIST Webbook
ripol	1270.00	NIST Webbook
ripol	1268.00	NIST Webbook
ripol	1306.00	NIST Webbook

ripol	1268.00		NIST Webbook
tb	412.20	K	NIST Webbook
tc	643.76	K	Joback Method
tf	251.80	K	Joback Method
vc	0.284	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	154.05	J/mol×K	423.85	Joback Method
cpg	165.60	J/mol×K	460.50	Joback Method
cpg	176.71	J/mol×K	497.15	Joback Method
cpg	187.37	J/mol×K	533.80	Joback Method
cpg	197.57	J/mol×K	570.45	Joback Method
cpg	207.30	J/mol×K	607.10	Joback Method
cpg	216.54	J/mol×K	643.76	Joback Method

## Sources

**McGowan Method:**

<http://link.springer.com/article/10.1007/BF02311772>

**NIST Webbook:**

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C3188009&Units=SI>

**Crippen Method:**

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

**Crippen Method:**

[https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

**Joback Method:**

[https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_method)

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume

<b>pc:</b>	Critical Pressure
<b>rinpol:</b>	Non-polar retention indices
<b>ripol:</b>	Polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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