

Furan, tetrahydro-2,2-dimethyl-5-(1-methylpropyl)-

Other names:	Furan, 5-sec-butyltetrahydro-2,2-dimethyl-5-sec-Butyl-2,2-dimethyltetrahydrofuran Tetrahydro-2,2-dimethyl-5-(1-methylpropyl)furan
Inchi:	InChI=1S/C10H20O/c1-5-8(2)9-6-7-10(3,4)11-9/h8-9H,5-7H2,1-4H3
InchiKey:	KGTIVYATFDLQDC-UHFFFAOYSA-N
Formula:	C10H20O
SMILES:	CCC(C)C1CCC(C)(C)O1
Mol. weight [g/mol]:	156.27
CAS:	33978-70-0

Physical Properties

Property code	Value	Unit	Source
gf	-31.89	kJ/mol	Joback Method
hf	-331.63	kJ/mol	Joback Method
hfus	14.82	kJ/mol	Joback Method
hvap	40.77	kJ/mol	Joback Method
log10ws	-2.97		Crippen Method
logp	2.990		Crippen Method
mcvol	146.770	ml/mol	McGowan Method
pc	2532.82	kPa	Joback Method
rinpol	1065.00		NIST Webbook
tb	465.56	K	Joback Method
tc	666.94	K	Joback Method
tf	244.59	K	Joback Method
vc	0.548	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	334.90	J/molxK	465.56	Joback Method
cpg	353.82	J/molxK	499.12	Joback Method
cpg	371.62	J/molxK	532.69	Joback Method
cpg	388.37	J/molxK	566.25	Joback Method
cpg	404.17	J/molxK	599.81	Joback Method

cpg	419.12	J/mol×K	633.37	Joback Method
cpg	433.30	J/mol×K	666.94	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=C33978700&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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
rinpolar:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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