Furan, tetrahydro-3-methyl-

Other names: 3-Methyltetrahydrofuran
Tetrahydro-3-methylfuran
Inchi: InChI=1S/C5H10O/c1-5-2-3-6-4-5/h5H,2-4H2,1H3
InchiKey: LJPCNSSTRWGCMZ-UHFFFAOYSA-N
Formula: C5H10O
SMILES: CC1CCOC1
Mol. weight [g/mol]: 86.13
CAS: 13423-15-9

Physical Properties

Property code	Value	Unit	Source
gf	-58.35	kJ/mol	Joback Method
hf	-218.05	kJ/mol	Joback Method
hfus	10.62	kJ/mol	Joback Method
hvap	31.49	kJ/mol	Joback Method
log10ws	-0.66		Crippen Method
logp	1.043		Crippen Method
mcvol	76.320	ml/mol	McGowan Method
pc	4288.66	kPa	Joback Method
rinpol	686.00		NIST Webbook
rinpol	705.00		NIST Webbook
ripol	1270.00		NIST Webbook
tb	356.03	K	Joback Method
tc	553.34	K	Joback Method
tf	183.58	K	Joback Method
vc	0.278	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	129.20	J/mol×K	356.03	Joback Method
cpg	184.54	J/mol×K	520.46	Joback Method
cpg	174.57	J/mol×K	487.57	Joback Method
cpg	164.07	J/mol×K	454.69	Joback Method

cpg	153.02	J/mol×K	421.80	Joback Method
cpg	141.40	J/mol×K	388.92	Joback Method
cpg	194.00	J/mol×K	553.34	Joback Method
dvisc	0.0003423	Pa×s	356.03	Joback Method
dvisc	0.0004294	Pa×s	327.29	Joback Method
dvisc	0.0005627	Pa×s	298.55	Joback Method
dvisc	0.0007810	Pa×s	269.80	Joback Method
dvisc	0.0011723	Pa×s	241.06	Joback Method
dvisc	0.0019641	Pa×s	212.32	Joback Method
dvisc	0.0038679	Pa×s	183.58	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	2.75734e+01
Coeff. B	-6.80699e+03
Coeff. C	-5.54500e+01
Temperature range (K), min.	304.92
Temperature range (K), max.	361.22

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=C13423159&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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
dvisc:	Dynamic viscosity
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
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