Furan, tetrahydro-2,5-dimethyl-

Other names:	2,5-Dimethyltetrahydrofuran
	2,5-Dimethyltetrahydrofuran,c&t
	2,5-dimethyltetrahydrofuran (cis+trans)
	Tetrahydro-2,5-dimethylfuran
	rel-(2R,5R)-2,5-dimethyltetrahydrofuran
	trans-2,5-dimethyltetrahydrofuran
Inchi:	InChI=1S/C6H12O/c1-5-3-4-6(2)7-5/h5-6H,3-4H2,1-2H3
InchiKey:	OXMIDRBAFOEOQT-UHFFFAOYSA-N
Formula:	C6H12O
SMILES:	CC1CCC(C)O1
Mol. weight [g/mol]:	100.16
CAS:	1003-38-9

Physical Properties

Property code	Value	Unit	Source
gf	-57.64	kJ/mol	Joback Method
hf	-259.03	kJ/mol	Joback Method
hfus	14.28	kJ/mol	Joback Method
hvap	33.41	kJ/mol	Joback Method
log10ws	-1.54		Crippen Method
logp	1.574		Crippen Method
mcvol	90.410	ml/mol	McGowan Method
pc	3646.53	kPa	Joback Method
rinpol	727.00		NIST Webbook
rinpol	688.00		NIST Webbook
rinpol	698.00		NIST Webbook
rinpol	694.00		NIST Webbook
tb	374.24	K	Joback Method
tc	569.86	K	Joback Method
tf	144.25 ± 5.00	K	NIST Webbook
vc	0.333	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	165.98	J/mol×K	374.24	Joback Method
cpg	179.78	J/mol×K	406.84	Joback Method
cpg	192.97	J/mol×K	439.45	Joback Method
cpg	205.56	J/mol×K	472.05	Joback Method
cpg	217.59	J/mol×K	504.65	Joback Method
cpg	229.04	J/mol×K	537.25	Joback Method
cpg	239.94	J/mol×K	569.86	Joback Method
dvisc	0.0023244	Pa×s	190.61	Joback Method
dvisc	0.0013336	Pa×s	221.22	Joback Method
dvisc	0.0008757	Pa×s	251.82	Joback Method
dvisc	0.0006300	Pa×s	282.43	Joback Method
dvisc	0.0004833	Pa×s	313.03	Joback Method
dvisc	0.0003887	Pa×s	343.63	Joback Method
dvisc	0.0003240	Pa×s	374.24	Joback Method
rhol	825.25	kg/m3	298.15	Study of the Surface Tension of Chlorocyclohexane or Bromocyclohexane with Some Cyclic Ethers

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.46463e+01
Coeff. B	-3.24104e+03
Coeff. C	-4.28010e+01
Temperature range (K), min.	268.52
Temperature range (K), max.	390.00

Sources

Study of the Surface Tension of Chlorocyclohexane or Bromocyclohexane with Some Cyclic Ethers:	https://www.doi.org/10.1021/je0500577
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=C1003389&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
Solubilities of gases in cycloethers. The solubility of 13 nonpolar gases in 2,5-dimethyltetrahydrofuran at 273.15 to 303.15 K and 101.32 kPa:	https://www.doi.org/10.1016/j.jct.2018.12.037

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
rhol:	Liquid Density
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume