Tetrahydro-4H-pyran-4-ol

Other names: 2H-Pyran-4-ol, tetrahydro-
tetrahydro-2H-pyran-4-ol
Inchi: InChI=1S/C5H10O2/c6-5-1-3-7-4-2-5/h5-6H,1-4H2
InchiKey: LMYJGUNNJIDROI-UHFFFAOYSA-N
Formula: C5H10O2
SMILES: OC1CCOCC1
Mol. weight [g/mol]: 102.13
CAS: 2081-44-9

Physical Properties

Property code	Value	Unit	Source
gf	-207.27	kJ/mol	Joback Method
hf	-376.44	kJ/mol	Joback Method
hfus	12.61	kJ/mol	Joback Method
hvap	48.34	kJ/mol	Joback Method
log10ws	-0.27		Crippen Method
logp	0.158		Crippen Method
mcvol	82.190	ml/mol	McGowan Method
pc	5029.93	kPa	Joback Method
tb	452.48	K	Joback Method
tc	649.36	K	Joback Method
tf	240.88	K	Joback Method
vc	0.288	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	175.96	J/mol×K	452.48	Joback Method
cpg	227.36	J/mol×K	616.54	Joback Method
cpg	218.15	J/mol×K	583.73	Joback Method
cpg	208.42	J/mol×K	550.92	Joback Method
cpg	198.15	J/mol×K	518.11	Joback Method
cpg	187.33	J/mol×K	485.29	Joback Method
cpg	236.06	J/mol×K	649.36	Joback Method

dvisc	0.0002682	Pa×s	452.48	Joback Method
dvisc	0.0004569	Pa×s	417.21	Joback Method
dvisc	0.0008590	Pa×s	381.95	Joback Method
dvisc	0.0018359	Pa×s	346.68	Joback Method
dvisc	0.0046608	Pa×s	311.41	Joback Method
dvisc	0.0150108	Pa×s	276.15	Joback Method
dvisc	0.0680898	Pa×s	240.88	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	360.20	K	2.00	NIST Webbook

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=C2081449&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
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
tb: Normal Boiling Point Temperature
tbrp: Boiling point at reduced pressure

tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume