2H-Pyran, 3,4-dihydro-

Other names:	1,2-Pyran, 3,4-dihydro-
	2,3-Dihydro-4H-pyran
	2,3-Dihydropyran
	2H-3,4-Dihydropyran
	3,4-Dihdro-2H-pyrane
	3,4-Dihydro-2-pyran
	3,4-Dihydro-2H-pyran
	3,4-Dihydropyran
	5,6-Dihydro-4H-pyran
	Dihydropyran
	NSC 57860
	Pyran, dihydro-
	«delta»2-Dihydropyran
	Â«deltaÂ»2-Dihydropyran
Inchi:	InChI=1S/C5H8O/c1-2-4-6-5-3-1/h2,4H,1,3,5H2
InchiKey:	BUDQDWGNQVEFAC-UHFFFAOYSA-N
Formula:	C5H8O
SMILES:	C1=COCCC1
Mol. weight [g/mol]:	84.12
CAS:	110-87-2

Physical Properties

Property code	Value	Unit	Source
affp	865.80	kJ/mol	NIST Webbook
basg	833.40	kJ/mol	NIST Webbook
chl	-2963.14 ± 0.80	kJ/mol	NIST Webbook
gf	-32.78	kJ/mol	Joback Method
hf	-112.81 ± 0.90	kJ/mol	NIST Webbook
hfl	-147.73 ± 0.86	kJ/mol	NIST Webbook
hfus	8.67	kJ/mol	Joback Method
hvap	34.92 ± 0.04	kJ/mol	NIST Webbook
hvap	34.90	kJ/mol	NIST Webbook
ie	8.60	eV	NIST Webbook
ie	8.35 ± 0.01	eV	NIST Webbook
ie	8.37 ± 0.02	eV	NIST Webbook
ie	8.35	eV	NIST Webbook
ie	8.34 ± 0.01	eV	NIST Webbook

log10ws	-1.25		Crippen Method
logp	1.310		Crippen Method
mcvol	72.020	ml/mol	McGowan Method
pc	4560.00 ± 50.66	kPa	NIST Webbook
rinpol	668.00		NIST Webbook
rinpol	697.00		NIST Webbook
rinpol	708.00		NIST Webbook
rinpol	720.00		NIST Webbook
rinpol	705.00		NIST Webbook
rinpol	664.00		NIST Webbook
rinpol	663.00		NIST Webbook
rinpol	671.00		NIST Webbook
rinpol	748.00		NIST Webbook
ripol	982.00		NIST Webbook
ripol	982.00		NIST Webbook
tb	358.85 ± 0.30	K	NIST Webbook
tb	359.00 ± 4.00	K	NIST Webbook
tb	359.70	K	NIST Webbook
tb	359.00 ± 2.00	K	NIST Webbook
tc	561.70 ± 0.83	K	NIST Webbook
tf	185.06	K	Joback Method
vc	0.257	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	115.35	J/mol×K	364.13	Joback Method
cpg	126.89	J/mol×K	399.00	Joback Method
cpg	137.79	J/mol×K	433.88	Joback Method
cpg	148.08	J/mol×K	468.75	Joback Method
cpg	157.79	J/mol×K	503.62	Joback Method
cpg	166.92	J/mol×K	538.49	Joback Method
cpg	175.50	J/mol×K	573.37	Joback Method
dvisc	0.0102466	Pa×s	185.06	Joback Method
dvisc	0.0039085	Pa×s	214.91	Joback Method
dvisc	0.0018859	Pa×s	244.75	Joback Method
dvisc	0.0010662	Pa×s	274.60	Joback Method
dvisc	0.0006741	Pa×s	304.44	Joback Method
dvisc	0.0004625	Pa×s	334.28	Joback Method
dvisc	0.0003376	Pa×s	364.13	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.49683e+01
Coeff. B	-3.62279e+03
Coeff. C	-9.12000e+00
Temperature range (K), min.	251.15
Temperature range (K), max.	384.27

Sources

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
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=C110872&Units=SI

Legend

affp:	Proton affinity
basg:	Gas basicity
chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
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