

Hydroxyl-d

Inchi:	InChI=1S/HO/h1H/i1D
InchiKey:	TUJKJAMUKRIRHC-MICDWDOJSA-N
Formula:	DO
SMILES:	[OH]
Mol. weight [g/mol]:	18.01
CAS:	13587-54-7

Physical Properties

Property code	Value	Unit	Source
gf	-135.32	kJ/mol	Joback Method
hf	-139.75	kJ/mol	Joback Method
hfus	1.53	kJ/mol	Joback Method
hvap	32.13	kJ/mol	Joback Method
log10ws	0.61		Crippen Method
logp	-0.177		Crippen Method
mvol	14.580	ml/mol	McGowan Method
pc	8541.72	kPa	Joback Method
tb	290.88	K	Joback Method
tc	447.50	K	Joback Method
tf	166.95	K	Joback Method
vc	0.045	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	13.29	J/molxK	290.88	Joback Method
cpg	14.34	J/molxK	316.98	Joback Method
cpg	15.25	J/molxK	343.09	Joback Method
cpg	16.01	J/molxK	369.19	Joback Method
cpg	16.65	J/molxK	395.29	Joback Method
cpg	17.17	J/molxK	421.39	Joback Method
cpg	17.57	J/molxK	447.50	Joback Method
dvisc	0.0185735	Paxs	166.95	Joback Method
dvisc	0.0065698	Paxs	187.60	Joback Method

dvisc	0.0028558	Paxs	208.26	Joback Method
dvisc	0.0014428	Paxs	228.91	Joback Method
dvisc	0.0008161	Paxs	249.57	Joback Method
dvisc	0.0005037	Paxs	270.23	Joback Method
dvisc	0.0003329	Paxs	290.88	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13587547&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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