

hypochlorous acid

Inchi:

InChI=1S/ClHO/c1-2/h2H

InchiKey:

QWPPOHNGKGFGJK-UHFFFAOYSA-N

Formula:

ClHO

SMILES:

OCl

Mol. weight [g/mol]:

52.46

CAS:

7790-92-3

Physical Properties

Property code	Value	Unit	Source
gf	-199.63	kJ/mol	Joback Method
hf	-211.30	kJ/mol	Joback Method
hfus	4.04	kJ/mol	Joback Method
hvap	36.66	kJ/mol	Joback Method
ie	11.12 ± 0.01	eV	NIST Webbook
ie	11.70 ± 0.20	eV	NIST Webbook
log10ws	-0.23		Crippen Method
logp	0.133		Crippen Method
mcvol	28.970	ml/mol	McGowan Method
pc	7393.34	kPa	Joback Method
tb	329.01	K	Joback Method
tc	499.65	K	Joback Method
tf	180.50	K	Joback Method
vc	0.103	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	33.09	J/mol×K	329.01	Joback Method
cpg	36.89	J/mol×K	471.21	Joback Method
cpg	36.18	J/mol×K	442.77	Joback Method
cpg	35.45	J/mol×K	414.33	Joback Method
cpg	34.70	J/mol×K	385.89	Joback Method
cpg	33.91	J/mol×K	357.45	Joback Method
cpg	37.56	J/mol×K	499.65	Joback Method

dvisc	0.0005979	Pa×s	329.01	Joback Method
dvisc	0.0010304	Pa×s	304.26	Joback Method
dvisc	0.0019555	Pa×s	279.51	Joback Method
dvisc	0.0042032	Pa×s	254.75	Joback Method
dvisc	0.0106521	Pa×s	230.00	Joback Method
dvisc	0.0337821	Pa×s	205.25	Joback Method
dvisc	0.1470321	Pa×s	180.50	Joback Method

Sources

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=C7790923&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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

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