

Nonane, 2-chloro-

Other names:	2-chlorononane
Inchi:	InChI=1S/C9H19Cl/c1-3-4-5-6-7-8-9(2)10/h9H,3-8H2,1-2H3
InchiKey:	DTWJISBCMBWFNY-UHFFFAOYSA-N
Formula:	C9H19Cl
SMILES:	CCCCCCCC(C)Cl
Mol. weight [g/mol]:	162.70
CAS:	2216-36-6

Physical Properties

Property code	Value	Unit	Source
gf	10.53	kJ/mol	Joback Method
hf	-250.11	kJ/mol	Joback Method
hfus	19.74	kJ/mol	Joback Method
hvap	39.62	kJ/mol	Joback Method
log10ws	-3.85		Crippen Method
logp	3.974		Crippen Method
mcvol	149.910	ml/mol	McGowan Method
pc	2244.00	kPa	Joback Method
rinpol	1099.00		NIST Webbook
rinpol	1106.00		NIST Webbook
rinpol	1099.00		NIST Webbook
rinpol	1106.00		NIST Webbook
ripol	1275.00		NIST Webbook
tb	442.31	K	Joback Method
tc	615.85	K	Joback Method
tf	206.11	K	Joback Method
vc	0.583	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	304.70	J/mol×K	442.31	Joback Method
cpg	318.86	J/mol×K	471.23	Joback Method
cpg	332.46	J/mol×K	500.16	Joback Method

cpg	345.50	J/mol×K	529.08	Joback Method
cpg	357.99	J/mol×K	558.00	Joback Method
cpg	369.96	J/mol×K	586.93	Joback Method
cpg	381.42	J/mol×K	615.85	Joback Method
dvisc	0.0087685	Paxs	206.11	Joback Method
dvisc	0.0030269	Paxs	245.48	Joback Method
dvisc	0.0014020	Paxs	284.84	Joback Method
dvisc	0.0007828	Paxs	324.21	Joback Method
dvisc	0.0004959	Paxs	363.58	Joback Method
dvisc	0.0003434	Paxs	402.94	Joback Method
dvisc	0.0002539	Paxs	442.31	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.42725e+01
Coeff. B	-3.92436e+03
Coeff. C	-6.99060e+01
Temperature range (K), min.	350.52
Temperature range (K), max.	507.84

Sources

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=C2216366&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
ripol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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