

5-Chloroheptanoic acid, methyl ester

Inchi:	InChI=1S/C8H15ClO2/c1-3-7(9)5-4-6-8(10)11-2/h7H,3-6H2,1-2H3
InchiKey:	DOGZPPRWSGHQHF-UHFFFAOYSA-N
Formula:	C8H15ClO2
SMILES:	CCC(Cl)CCCC(=O)OC
Mol. weight [g/mol]:	178.66

Physical Properties

Property code	Value	Unit	Source
gf	-231.81	kJ/mol	Joback Method
hf	-474.27	kJ/mol	Joback Method
hfus	19.94	kJ/mol	Joback Method
hvap	46.55	kJ/mol	Joback Method
log10ws	-2.30		Crippen Method
logp	2.347		Crippen Method
mcvol	143.260	ml/mol	McGowan Method
pc	2579.34	kPa	Joback Method
rinpol	1196.00		NIST Webbook
rinpol	1191.00		NIST Webbook
rinpol	1196.00		NIST Webbook
ripol	1657.00		NIST Webbook
ripol	1657.00		NIST Webbook
ripol	1702.00		NIST Webbook
tb	495.72	K	Joback Method
tc	680.38	K	Joback Method
tf	267.00	K	Joback Method
vc	0.550	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	307.89	J/mol×K	495.72	Joback Method
cpg	363.91	J/mol×K	649.60	Joback Method
cpg	353.67	J/mol×K	618.82	Joback Method
cpg	342.95	J/mol×K	588.05	Joback Method

cpg	331.75	J/molxK	557.27	Joback Method
cpg	320.07	J/molxK	526.50	Joback Method
cpg	373.67	J/molxK	680.38	Joback Method
dvisc	0.0002478	Paxs	495.72	Joback Method
dvisc	0.0003265	Paxs	457.60	Joback Method
dvisc	0.0004523	Paxs	419.48	Joback Method
dvisc	0.0006687	Paxs	381.36	Joback Method
dvisc	0.0010785	Paxs	343.24	Joback Method
dvisc	0.0019599	Paxs	305.12	Joback Method
dvisc	0.0042242	Paxs	267.00	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=R309501&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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
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

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