

10-Chlorohexadecanoic acid, methyl ester

Inchi:	InChI=1S/C17H33ClO2/c1-3-4-5-10-13-16(18)14-11-8-6-7-9-12-15-17(19)20-2/h16H,3-1
InchiKey:	XAGDPMOCVPFAQS-UHFFFAOYSA-N
Formula:	C17H33ClO2
SMILES:	CCCCCCC(Cl)CCCCCCCC(=O)OC
Mol. weight [g/mol]:	304.90

Physical Properties

Property code	Value	Unit	Source
gf	-156.03	kJ/mol	Joback Method
hf	-660.03	kJ/mol	Joback Method
hfus	43.25	kJ/mol	Joback Method
hvap	66.59	kJ/mol	Joback Method
log10ws	-6.07		Crippen Method
logp	5.858		Crippen Method
mcvol	270.070	ml/mol	McGowan Method
pc	1245.97	kPa	Joback Method
rinpol	2104.00		NIST Webbook
rinpol	2103.00		NIST Webbook
rinpol	2104.00		NIST Webbook
ripol	2570.00		NIST Webbook
ripol	2570.00		NIST Webbook
ripol	2564.00		NIST Webbook
tb	701.64	K	Joback Method
tc	876.28	K	Joback Method
tf	368.43	K	Joback Method
vc	1.054	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	767.83	J/molxK	701.64	Joback Method
cpg	785.61	J/molxK	730.75	Joback Method
cpg	802.54	J/molxK	759.85	Joback Method
cpg	818.65	J/molxK	788.96	Joback Method

cpg	833.96	J/molxK	818.07	Joback Method
cpg	848.48	J/molxK	847.17	Joback Method
cpg	862.24	J/molxK	876.28	Joback Method
dvisc	0.0022085	Paxs	368.43	Joback Method
dvisc	0.0009117	Paxs	423.97	Joback Method
dvisc	0.0004619	Paxs	479.50	Joback Method
dvisc	0.0002695	Paxs	535.03	Joback Method
dvisc	0.0001741	Paxs	590.57	Joback Method
dvisc	0.0001212	Paxs	646.11	Joback Method
dvisc	0.0000893	Paxs	701.64	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R308731&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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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