Myristoyl chloride

Other names: Tetradecanoyl chloride
Inchi: InChI=1S/C14H27ClO/c1-2-3-4-5-6-7-8-9-10-11-12-13-14(15)16/h2-13H2,1H3
InchiKey: LPWCRLGKYWVLHQ-UHFFFAOYSA-N
Formula: C14H27ClO
SMILES: CCCCCCCCCCCCCC(=O)Cl
Mol. weight [g/mol]: 246.82
CAS: 112-64-1

Physical Properties

Property code	Value	Unit	Source
gf	-73.85	kJ/mol	Joback Method
hf	-460.61	kJ/mol	Joback Method
hfus	37.81	kJ/mol	Joback Method
hvap	57.89	kJ/mol	Joback Method
log10ws	-5.61		Crippen Method
logp	5.453		Crippen Method
mcvol	221.930	ml/mol	McGowan Method
pc	1554.90	kPa	Joback Method
tb	611.02	K	Joback Method
tc	783.84	K	Joback Method
tf	327.39	K	Joback Method
vc	0.875	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	571.80	J/mol×K	611.02	Joback Method
cpg	646.79	J/mol×K	755.04	Joback Method
cpg	633.16	J/mol×K	726.24	Joback Method
cpg	618.88	J/mol×K	697.43	Joback Method
cpg	603.90	J/mol×K	668.63	Joback Method
cpg	588.22	J/mol×K	639.82	Joback Method
cpg	659.77	J/mol×K	783.84	Joback Method
dvisc	0.0001813	Pa×s	611.02	Joback Method

dvisc	0.0002400	Pa×s	563.75	Joback Method
dvisc	0.0003346	Pa×s	516.48	Joback Method
dvisc	0.0004988	Pa×s	469.20	Joback Method
dvisc	0.0008130	Pa×s	421.93	Joback Method
dvisc	0.0014991	Pa×s	374.66	Joback Method
dvisc	0.0032984	Pa×s	327.39	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	447.20	K	2.10	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C112641&Units=SI
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

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
tb: Normal Boiling Point Temperature
tbrp: Boiling point at reduced pressure
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume