

Cyclopentaneundecanoic acid

Inchi:	InChI=1S/C16H30O2/c17-16(18)14-8-6-4-2-1-3-5-7-11-15-12-9-10-13-15/h15H,1-14H2,(
InchiKey:	NYPUDXUXLBGPAZ-UHFFFAOYSA-N
Formula:	C16H30O2
SMILES:	O=C(O)CCCCCCCCCCC1CCCC1
Mol. weight [g/mol]:	254.41
CAS:	6053-49-2

Physical Properties

Property code	Value	Unit	Source
gf	-145.35	kJ/mol	Joback Method
hf	-577.90	kJ/mol	Joback Method
hfus	36.82	kJ/mol	Joback Method
hvap	74.89	kJ/mol	Joback Method
log10ws	-5.27		Crippen Method
logp	5.162		Crippen Method
mcvol	232.880	ml/mol	McGowan Method
pc	1708.95	kPa	Joback Method
tb	726.81	K	Joback Method
tc	908.38	K	Joback Method
tf	391.73	K	Joback Method
vc	0.897	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	711.67	J/mol×K	726.81	Joback Method
cpg	728.65	J/mol×K	757.07	Joback Method
cpg	744.75	J/mol×K	787.33	Joback Method
cpg	759.98	J/mol×K	817.60	Joback Method
cpg	774.40	J/mol×K	847.86	Joback Method
cpg	788.04	J/mol×K	878.12	Joback Method
cpg	800.93	J/mol×K	908.38	Joback Method
dvisc	0.0038033	Pa×s	391.73	Joback Method
dvisc	0.0011727	Pa×s	447.58	Joback Method

dvisc	0.0004695	Pa×s	503.42	Joback Method
dvisc	0.0002256	Pa×s	559.27	Joback Method
dvisc	0.0001239	Pa×s	615.12	Joback Method
dvisc	0.0000752	Pa×s	670.96	Joback Method
dvisc	0.0000492	Pa×s	726.81	Joback Method

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=C6053492&Units=SI

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

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