

Pentyl tetradecyl ether

Inchi:	InChI=1S/C19H40O/c1-3-5-7-8-9-10-11-12-13-14-15-17-19-20-18-16-6-4-2/h3-19H2,1-2H
InchiKey:	GPHFXEPRDMWCJM-UHFFFAOYSA-N
Formula:	C19H40O
SMILES:	CCCCCCCCCCCCCOCCCC
Mol. weight [g/mol]:	284.52

Physical Properties

Property code	Value	Unit	Source
gf	4.10	kJ/mol	Joback Method
hf	-567.71	kJ/mol	Joback Method
hfus	46.15	kJ/mol	Joback Method
hvap	60.30	kJ/mol	Joback Method
log10ws	-6.86		Crippen Method
logp	6.894		Crippen Method
mvol	284.440	ml/mol	McGowan Method
pc	1068.66	kPa	Joback Method
rinpol	1971.00		NIST Webbook
rinpol	1971.00		NIST Webbook
tb	656.54	K	Joback Method
tc	817.30	K	Joback Method
tf	326.12	K	Joback Method
vc	1.117	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	815.08	J/molxK	656.54	Joback Method
cpg	835.37	J/molxK	683.33	Joback Method
cpg	854.83	J/molxK	710.13	Joback Method
cpg	873.49	J/molxK	736.92	Joback Method
cpg	891.37	J/molxK	763.71	Joback Method
cpg	908.48	J/molxK	790.51	Joback Method
cpg	924.85	J/molxK	817.30	Joback Method
dvisc	0.0026162	Paxs	326.12	Joback Method

dvisc	0.0009778	Paxs	381.19	Joback Method
dvisc	0.0004686	Paxs	436.26	Joback Method
dvisc	0.0002648	Paxs	491.33	Joback Method
dvisc	0.0001679	Paxs	546.40	Joback Method
dvisc	0.0001157	Paxs	601.47	Joback Method
dvisc	0.0000849	Paxs	656.54	Joback Method

Sources

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=U406417&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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

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