n-Heptadecyl-cyclopentane

Other names: Cyclopentane, heptadecyl
Inchi: InChI=1S/C22H44/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-19-22-20-17-18-21-22/h22H
InchiKey: SSQOCAUNFVDULL-UHFFFAOYSA-N
Formula: C22H44
SMILES: CCCCCCCCCCCCCCCCCCC1CCCC1
Mol. weight [g/mol]: 308.58

Physical Properties

Property code	Value	Unit	Source
gf	170.91	kJ/mol	Joback Method
hf	-436.93	kJ/mol	Joback Method
hfus	46.67	kJ/mol	Joback Method
hvap	64.82	kJ/mol	Joback Method
log10ws	-8.68		Crippen Method
logp	8.438		Crippen Method
mcvol	309.980	ml/mol	McGowan Method
pc	1007.81	kPa	Joback Method
rinpol	2273.00		NIST Webbook
rinpol	2284.00		NIST Webbook
rinpol	2284.00		NIST Webbook
rinpol	2273.00		NIST Webbook
tb	718.04	K	Joback Method
tc	893.24	K	Joback Method
tf	348.60	K	Joback Method
vc	1.208	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	957.35	J/mol×K	718.04	Joback Method
cpg	980.34	J/mol×K	747.24	Joback Method
cpg	1002.22	J/mol×K	776.44	Joback Method
cpg	1023.04	J/mol×K	805.64	Joback Method
cpg	1042.83	J/mol×K	834.84	Joback Method

cpg	1061.65	J/mol×K	864.04	Joback Method
cpg	1079.53	J/mol×K	893.24	Joback Method
dvisc	0.0032256	Pa×s	348.60	Joback Method
dvisc	0.0012017	Pa×s	410.17	Joback Method
dvisc	0.0005793	Pa×s	471.75	Joback Method
dvisc	0.0003305	Pa×s	533.32	Joback Method
dvisc	0.0002118	Pa×s	594.89	Joback Method
dvisc	0.0001476	Pa×s	656.47	Joback Method
dvisc	0.0001094	Pa×s	718.04	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R248570&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume