Cyclopentene, 3-heptyl

Other names: 3-heptyl-1-cyclopentene
Inchi: InChI=1S/C12H22/c1-2-3-4-5-6-9-12-10-7-8-11-12/h7,10,12H,2-6,8-9,11H2,1H3
InchiKey: RLXNRBDYXGEREA-UHFFFAOYSA-N
Formula: C12H22
SMILES: CCCCCCCC1C=CCC1
Mol. weight [g/mol]: 166.30

Physical Properties

Property code	Value	Unit	Source
gf	116.67	kJ/mol	Joback Method
hf	-172.75	kJ/mol	Joback Method
hfus	21.99	kJ/mol	Joback Method
hvap	42.86	kJ/mol	Joback Method
log10ws	-4.35		Crippen Method
logp	4.313		Crippen Method
mcvol	164.780	ml/mol	McGowan Method
pc	2155.30	kPa	Joback Method
rinpol	1214.00		NIST Webbook
ripol	1326.90		NIST Webbook
ripol	1335.00		NIST Webbook
ripol	1338.00		NIST Webbook
ripol	1327.00		NIST Webbook
ripol	1359.00		NIST Webbook
ripol	1346.00		NIST Webbook
ripol	1338.00		NIST Webbook
tb	488.40	K	Joback Method
tc	675.59	K	Joback Method
tf	236.66	K	Joback Method
vc	0.634	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	377.92	J/mol×K	488.40	Joback Method

cpg	463.22	J/mol×K	644.39	Joback Method
cpg	447.87	J/mol×K	613.19	Joback Method
cpg	431.69	J/mol×K	581.99	Joback Method
cpg	414.66	J/mol×K	550.80	Joback Method
cpg	396.75	J/mol×K	519.60	Joback Method
cpg	477.79	J/mol×K	675.59	Joback Method
dvisc	0.0002803	Pa×s	488.40	Joback Method
dvisc	0.0003569	Pa×s	446.44	Joback Method
dvisc	0.0004778	Pa×s	404.49	Joback Method
dvisc	0.0006844	Pa×s	362.53	Joback Method
dvisc	0.0010768	Pa×s	320.57	Joback Method
dvisc	0.0019421	Pa×s	278.62	Joback Method
dvisc	0.0043175	Pa×s	236.66	Joback Method

Sources

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=R307243&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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