dimethyl-3,8 decadiene-1,9

Inchi: InChI=1S/C12H22/c1-5-11(3)9-7-8-10-12(4)6-2/h5-6,11-12H,1-2,7-10H2,3-4H3
InchiKey: DGEDOXKBBAZATL-UHFFFAOYSA-N
Formula: C12H22
SMILES: C=CC(C)CCCCC(C)C=C
Mol. weight [g/mol]: 166.31

Physical Properties

Property code	Value	Unit	Source
af	0.4182		Cheméo Relay (1.0)
gf	220.96	kJ/mol	Joback Method
hf	-132.26	kJ/mol	Cheméo Relay (1.0)
hfus	17.23	kJ/mol	Joback Method
hvap	53.47	kJ/mol	Cheméo Relay (1.0)
ie	9.21	eV	Cheméo Relay (1.0)
log10ws	-5.48		Cheméo Relay (1.0)
logp	4.191		Crippen Method
mcvol	171.340	ml/mol	McGowan Method
pc	1940.65	kPa	Joback Method
rinpol	1093.00		NIST Webbook
rinpol	1109.00		NIST Webbook
rinpol	1093.00		NIST Webbook
tb	461.12	K	Cheméo Relay (1.0)
tc	622.27	K	Cheméo Relay (1.0)
tf	225.45	K	Cheméo Relay (1.0)
vc	0.620	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	371.59	J/mol×K	466.44	Joback Method
cpg	388.27	J/mol×K	495.44	Joback Method
cpg	404.22	J/mol×K	524.44	Joback Method
cpg	419.47	J/mol×K	553.45	Joback Method
cpg	434.02	J/mol×K	582.45	Joback Method

cpg	447.92	J/mol×K	611.45	Joback Method
cpg	461.18	J/mol×K	640.45	Joback Method
dvisc	0.0139333	Pa×s	191.48	Joback Method
dvisc	0.0034445	Pa×s	237.31	Joback Method
dvisc	0.0013387	Pa×s	283.13	Joback Method
dvisc	0.0006770	Pa×s	328.96	Joback Method
dvisc	0.0004045	Pa×s	374.79	Joback Method
dvisc	0.0002704	Pa×s	420.61	Joback Method
dvisc	0.0001956	Pa×s	466.44	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R133923&Units=SI
Joback Method: https://en.wikipedia.org/wiki/Joback_method
McGowan Method: http://link.springer.com/article/10.1007/BF02311772
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):
Cheméo Relay (1.0, beta):

Legend

af: Acentric Factor
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
ie: Ionization energy
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