

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)CCCC(C)C=C
Mol. weight [g/mol]:	166.30

Physical Properties

Property code	Value	Unit	Source
gf	220.96	kJ/mol	Joback Method
hf	-50.71	kJ/mol	Joback Method
hfus	17.23	kJ/mol	Joback Method
hvap	40.19	kJ/mol	Joback Method
log10ws	-4.07		Crippen Method
logp	4.191		Crippen Method
mcvol	171.340	ml/mol	McGowan Method
pc	1940.65	kPa	Joback Method
rinpol	1109.00		NIST Webbook
rinpol	1093.00		NIST Webbook
rinpol	1093.00		NIST Webbook
tb	466.44	K	Joback Method
tc	640.45	K	Joback Method
tf	191.48	K	Joback Method
vc	0.657	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	371.59	J/molxK	466.44	Joback Method
cpg	388.27	J/molxK	495.44	Joback Method
cpg	404.22	J/molxK	524.44	Joback Method
cpg	419.47	J/molxK	553.45	Joback Method
cpg	434.02	J/molxK	582.45	Joback Method
cpg	447.92	J/molxK	611.45	Joback Method
cpg	461.18	J/molxK	640.45	Joback Method

dvisc	0.0139333	Paxs	191.48	Joback Method
dvisc	0.0034445	Paxs	237.31	Joback Method
dvisc	0.0013387	Paxs	283.13	Joback Method
dvisc	0.0006770	Paxs	328.96	Joback Method
dvisc	0.0004045	Paxs	374.79	Joback Method
dvisc	0.0002704	Paxs	420.61	Joback Method
dvisc	0.0001956	Paxs	466.44	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=R133923&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
mvol:	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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