1-Decene, 4,8-dimethyl

Inchi: InChI=1S/C12H24/c1-5-8-12(4)10-7-9-11(3)6-2/h5,11-12H,1,6-10H2,2-4H3
InchiKey: IJZOMHNNXDLIPF-UHFFFAOYSA-N
Formula: C12H24
SMILES: C=CCC(C)CCCC(C)CC
Mol. weight [g/mol]: 168.32

Physical Properties

Property code	Value	Unit	Source
gf	133.12	kJ/mol	Joback Method
hf	-176.14	kJ/mol	Joback Method
hfus	18.51	kJ/mol	Joback Method
hvap	40.86	kJ/mol	Joback Method
log10ws	-4.22		Crippen Method
logp	4.415		Crippen Method
mcvol	175.640	ml/mol	McGowan Method
pc	1870.79	kPa	Joback Method
rinpol	1120.00		NIST Webbook
tb	469.76	K	Joback Method
tc	640.47	K	Joback Method
tf	193.24	K	Joback Method
vc	0.676	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	389.18	J/mol×K	469.76	Joback Method
cpg	406.33	J/mol×K	498.21	Joback Method
cpg	422.76	J/mol×K	526.66	Joback Method
cpg	438.51	J/mol×K	555.12	Joback Method
cpg	453.59	J/mol×K	583.57	Joback Method
cpg	468.02	J/mol×K	612.02	Joback Method
cpg	481.83	J/mol×K	640.47	Joback Method
dvisc	0.0161289	Pa×s	193.24	Joback Method
dvisc	0.0037993	Pa×s	239.33	Joback Method

dvisc	0.0014275	Pa×s	285.41	Joback Method
dvisc	0.0007042	Pa×s	331.50	Joback Method
dvisc	0.0004127	Pa×s	377.59	Joback Method
dvisc	0.0002717	Pa×s	423.67	Joback Method
dvisc	0.0001942	Pa×s	469.76	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=R46780&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