1-Nonene, 7-methyl

Other names: 7-methy-1-nonene
Inchi: InChI=1S/C10H20/c1-4-6-7-8-9-10(3)5-2/h4,10H,1,5-9H2,2-3H3
InchiKey: ZZYJKJGZMBFFBO-UHFFFAOYSA-N
Formula: C10H20
SMILES: C=CCCCCC(C)CC
Mol. weight [g/mol]: 140.27

Physical Properties

Property code	Value	Unit	Source
gf	118.72	kJ/mol	Joback Method
hf	-129.58	kJ/mol	Joback Method
hfus	16.85	kJ/mol	Joback Method
hvap	36.80	kJ/mol	Joback Method
log10ws	-3.62		Crippen Method
logp	3.779		Crippen Method
mcvol	147.460	ml/mol	McGowan Method
pc	2208.29	kPa	Joback Method
rinpol	961.00		NIST Webbook
rinpol	960.00		NIST Webbook
tb	424.44	K	Joback Method
tc	593.69	K	Joback Method
tf	185.70	K	Joback Method
vc	0.571	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	299.11	J/mol×K	424.44	Joback Method
cpg	314.13	J/mol×K	452.65	Joback Method
cpg	328.55	J/mol×K	480.86	Joback Method
cpg	342.39	J/mol×K	509.07	Joback Method
cpg	355.67	J/mol×K	537.27	Joback Method
cpg	368.39	J/mol×K	565.48	Joback Method
cpg	380.58	J/mol×K	593.69	Joback Method

dvisc	0.0091831	Pa×s	185.70	Joback Method
dvisc	0.0028680	Pa×s	225.49	Joback Method
dvisc	0.0012699	Pa×s	265.28	Joback Method
dvisc	0.0006955	Pa×s	305.07	Joback Method
dvisc	0.0004376	Pa×s	344.86	Joback Method
dvisc	0.0003031	Pa×s	384.65	Joback Method
dvisc	0.0002249	Pa×s	424.44	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R46972&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