3,4-Octadiene, 2,2,7,7-tetramethyl-

Other names: 2,2,7,7-Tetramethyl-3,4-octadiene
Inchi: InChI=1S/C12H22/c1-11(2,3)9-7-8-10-12(4,5)6/h7,10H,9H2,1-6H3
InchiKey: APIDJYHKQJDGMH-UHFFFAOYSA-N
Formula: C12H22
SMILES: CC(C)(C)C=C=CCC(C)(C)C
Mol. weight [g/mol]: 166.30
CAS: 61092-76-0

Physical Properties

Property code	Value	Unit	Source
gf	264.34	kJ/mol	Joback Method
hf	-28.51	kJ/mol	Joback Method
hfus	14.34	kJ/mol	Joback Method
hvap	40.11	kJ/mol	Joback Method
log10ws	-4.09		Crippen Method
logp	4.180		Crippen Method
mcvol	171.340	ml/mol	McGowan Method
pc	2088.84	kPa	Joback Method
tb	474.93	K	Joback Method
tc	675.48	K	Joback Method
tf	231.27	K	Joback Method
vc	0.645	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	382.56	J/mol×K	474.93	Joback Method
cpg	401.55	J/mol×K	508.35	Joback Method
cpg	419.41	J/mol×K	541.78	Joback Method
cpg	436.20	J/mol×K	575.20	Joback Method
cpg	451.99	J/mol×K	608.63	Joback Method
cpg	466.82	J/mol×K	642.05	Joback Method
cpg	480.77	J/mol×K	675.48	Joback Method

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C61092760&Units=SI

Legend

cpg:	Ideal gas heat capacity
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume