3,4-Octadiene, 7,7-dimethyl-

Other names: 7,7-Dimethyl-3,4-octadiene
Inchi: InChI=1S/C10H18/c1-5-6-7-8-9-10(2,3)4/h6,8H,5,9H2,1-4H3
InchiKey: DPXVFALSMPSGEF-UHFFFAOYSA-N
Formula: C10H18
SMILES: CCC=C=CCC(C)(C)C
Mol. weight [g/mol]: 138.25
CAS: 61129-34-8

Physical Properties

Property code	Value	Unit	Source
gf	244.66	kJ/mol	Joback Method
hf	21.52	kJ/mol	Joback Method
hfus	16.57	kJ/mol	Joback Method
hvap	36.95	kJ/mol	Joback Method
log10ws	-3.49		Crippen Method
logp	3.544		Crippen Method
mcvol	143.160	ml/mol	McGowan Method
pc	2462.92	kPa	Joback Method
tb	432.40	K	Joback Method
tc	624.80	K	Joback Method
tf	206.31	K	Joback Method
vc	0.544	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	291.13	J/mol×K	432.40	Joback Method
cpg	306.92	J/mol×K	464.47	Joback Method
cpg	321.90	J/mol×K	496.53	Joback Method
cpg	336.10	J/mol×K	528.60	Joback Method
cpg	349.57	J/mol×K	560.67	Joback Method
cpg	362.34	J/mol×K	592.74	Joback Method
cpg	374.43	J/mol×K	624.80	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=C61129348&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