2-Methylenebornane

Other names: 1,7,7-Trimethyl-2-methylenebicyclo[2.2.1]heptane
2-Methylene-1,7,7-trimethylbicyclo[2.2.1]heptane
Inchi: InChI=1S/C11H18/c1-8-7-9-5-6-11(8,4)10(9,2)3/h9H,1,5-7H2,2-4H3
InchiKey: ZASFWGOMAIPHLN-UHFFFAOYSA-N
Formula: C11H18
SMILES: C=C1CC2CCC1(C)C2(C)C
Mol. weight [g/mol]: 150.26
CAS: 27538-47-2

Physical Properties

Property code	Value	Unit	Source
gf	185.53	kJ/mol	Joback Method
hf	-36.55	kJ/mol	Joback Method
hfus	5.73	kJ/mol	Joback Method
hvap	37.63	kJ/mol	Joback Method
ie	8.60 ± 0.10	eV	NIST Webbook
log10ws	-3.35		Crippen Method
logp	3.389		Crippen Method
mcvol	139.830	ml/mol	McGowan Method
pc	2732.56	kPa	Joback Method
tb	463.80	K	Joback Method
tc	677.76	K	Joback Method
tf	303.33	K	Joback Method
vc	0.536	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	318.31	J/mol×K	463.80	Joback Method
cpg	337.57	J/mol×K	499.46	Joback Method
cpg	355.18	J/mol×K	535.12	Joback Method
cpg	371.37	J/mol×K	570.78	Joback Method
cpg	386.37	J/mol×K	606.44	Joback Method
cpg	400.40	J/mol×K	642.10	Joback Method

cpg	413.68	J/mol×K	677.76	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=C27538472&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
ie:	Ionization energy
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