Bicyclo[2.2.1]heptane, 1,7,7-trimethyl-

Other names:	Bornane
	Bornylane
	Camphane
	1,7,7-Trimethylbicyclo[2.2.1]heptane
Inchi:	InChI=1S/C10H18/c1-9(2)8-4-6-10(9,3)7-5-8/h8H,4-7H2,1-3H3
InchiKey:	BEWYHVAWEKZDPP-UHFFFAOYSA-N
Formula:	C10H18
SMILES:	CC12CCC(CC1)C2(C)C
Mol. weight [g/mol]:	138.25
CAS:	464-15-3

Physical Properties

Property code	Value	Unit	Source
gf	124.03	kJ/mol	Joback Method
hf	-100.15	kJ/mol	Joback Method
hfus	4.30	kJ/mol	Joback Method
hvap	35.24	kJ/mol	Joback Method
log10ws	-3.07		Crippen Method
logp	3.223		Crippen Method
mcvol	130.040	ml/mol	McGowan Method
pc	2966.57	kPa	Joback Method
rinpol	980.00		NIST Webbook
ripol	1140.00		NIST Webbook
ripol	1140.00		NIST Webbook
ripol	1131.00		NIST Webbook
ripol	1144.00		NIST Webbook
tb	441.76	K	Joback Method
tc	656.69	K	Joback Method
tf	431.00 ± 5.00	K	NIST Webbook
tf	429.40 ± 2.00	K	NIST Webbook
vc	0.496	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	288.12	J/mol×K	441.76	Joback Method
cpg	308.54	J/mol×K	477.58	Joback Method
cpg	327.12	J/mol×K	513.40	Joback Method
cpg	344.11	J/mol×K	549.22	Joback Method
cpg	359.72	J/mol×K	585.04	Joback Method
cpg	374.21	J/mol×K	620.87	Joback Method
cpg	387.79	J/mol×K	656.69	Joback Method

Sources

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=C464153&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
rinpol: Non-polar retention indices
ripol: Polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume