(+)-4-Carene

Inchi: InChI=1S/C10H16/c1-7-4-5-8-9(6-7)10(8,2)3/h4-5,7-9H,6H2,1-3H3
InchiKey: LGNSZMLHOYDATP-UHFFFAOYSA-N
Formula: C10H16
SMILES: CC1C=CC2C(C1)C2(C)C
Mol. weight [g/mol]: 136.23
CAS: 29050-33-7

Physical Properties

Property code	Value	Unit	Source
gf	151.77	kJ/mol	Joback Method
hf	-77.95	kJ/mol	Joback Method
hfus	12.89	kJ/mol	Joback Method
hvap	36.38	kJ/mol	Joback Method
log10ws	-2.68		Crippen Method
logp	2.855		Crippen Method
mcvol	125.740	ml/mol	McGowan Method
pc	2835.36	kPa	Joback Method
rinpol	998.00		NIST Webbook
rinpol	987.00		NIST Webbook
rinpol	1011.00		NIST Webbook
rinpol	987.00		NIST Webbook
rinpol	1004.00		NIST Webbook
rinpol	1030.00		NIST Webbook
rinpol	1014.00		NIST Webbook
rinpol	1022.00		NIST Webbook
rinpol	1009.00		NIST Webbook
rinpol	1008.00		NIST Webbook
rinpol	998.00		NIST Webbook
rinpol	1001.00		NIST Webbook
rinpol	1017.00		NIST Webbook
rinpol	996.00		NIST Webbook
rinpol	1022.00		NIST Webbook
rinpol	1002.50		NIST Webbook
rinpol	1002.00		NIST Webbook
rinpol	1001.00		NIST Webbook
rinpol	1022.00		NIST Webbook
rinpol	998.00		NIST Webbook

rinpol	1018.00		NIST Webbook
ripol	1157.00		NIST Webbook
ripol	1149.00		NIST Webbook
ripol	1144.00		NIST Webbook
ripol	1128.00		NIST Webbook
ripol	1149.00		NIST Webbook
tb	436.01	K	Joback Method
tc	643.39	K	Joback Method
tf	251.00	K	Joback Method
vc	0.483	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	272.63	J/mol×K	436.01	Joback Method
cpg	291.69	J/mol×K	470.57	Joback Method
cpg	309.35	J/mol×K	505.14	Joback Method
cpg	325.74	J/mol×K	539.70	Joback Method
cpg	340.98	J/mol×K	574.26	Joback Method
cpg	355.22	J/mol×K	608.83	Joback Method
cpg	368.57	J/mol×K	643.39	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C29050337&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
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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