trans-Bicyclo[7.1.0]decane

Inchi: InChI=1S/C10H18/c1-2-4-6-9-8-10(9)7-5-3-1/h9-10H,1-8H2/t9-,10-/m1/s1
InchiKey: SAXQCCHLVOICGG-NXEZZACHSA-N
Formula: C10H18
SMILES: C1CCCC2CC2CCC1
Mol. weight [g/mol]: 138.25

Physical Properties

Property code	Value	Unit	Source
gf	106.42	kJ/mol	Joback Method
hf	-128.77	kJ/mol	Joback Method
hfus	9.53	kJ/mol	Joback Method
hvap	38.37	kJ/mol	Joback Method
log10ws	-3.31		Crippen Method
logp	3.367		Crippen Method
mcvol	130.040	ml/mol	McGowan Method
pc	3025.61	kPa	Joback Method
rinpol	1090.00		NIST Webbook
rinpol	1090.00		NIST Webbook
tb	458.76	K	Joback Method
tc	680.81	K	Joback Method
tf	224.26	K	Joback Method
vc	0.477	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	286.16	J/mol×K	458.76	Joback Method
cpg	308.56	J/mol×K	495.77	Joback Method
cpg	329.59	J/mol×K	532.78	Joback Method
cpg	349.32	J/mol×K	569.78	Joback Method
cpg	367.80	J/mol×K	606.79	Joback Method
cpg	385.09	J/mol×K	643.80	Joback Method
cpg	401.24	J/mol×K	680.81	Joback Method
dvisc	0.0046703	Pa×s	224.26	Joback Method

dvisc	0.0022946	Pa×s	263.34	Joback Method
dvisc	0.0013547	Pa×s	302.43	Joback Method
dvisc	0.0009023	Pa×s	341.51	Joback Method
dvisc	0.0006533	Pa×s	380.59	Joback Method
dvisc	0.0005024	Pa×s	419.68	Joback Method
dvisc	0.0004040	Pa×s	458.76	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=R294890&Units=SI

Legend

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