Tricyclo[3.3.1.1(3.7)]decane

Inchi: InChI=1S/C11H20/c1-2-9-6-10-4-3-5-11(7-9)8-10/h9-11H,2-8H2,1H3
InchiKey: DSDPWOMEHMJPOH-UHFFFAOYSA-N
Formula: C11H20
SMILES: CCC1CC2CCCC(C1)C2
Mol. weight [g/mol]: 152.28

Physical Properties

Property code	Value	Unit	Source
gf	119.23	kJ/mol	Joback Method
hf	-163.59	kJ/mol	Joback Method
hfus	15.29	kJ/mol	Joback Method
hvap	40.11	kJ/mol	Joback Method
log10ws	-3.49		Crippen Method
logp	3.613		Crippen Method
mcvol	144.130	ml/mol	McGowan Method
pc	2571.50	kPa	Joback Method
rinpol	1073.00		NIST Webbook
rinpol	1073.00		NIST Webbook
tb	472.70	K	Joback Method
tc	682.83	K	Joback Method
tf	234.81	K	Joback Method
vc	0.540	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	333.13	J/mol×K	472.70	Joback Method
cpg	355.39	J/mol×K	507.72	Joback Method
cpg	376.38	J/mol×K	542.74	Joback Method
cpg	396.16	J/mol×K	577.76	Joback Method
cpg	414.78	J/mol×K	612.79	Joback Method
cpg	432.29	J/mol×K	647.81	Joback Method
cpg	448.75	J/mol×K	682.83	Joback Method
dvisc	0.0022016	Pa×s	234.81	Joback Method

dvisc	0.0014251	Pa×s	274.46	Joback Method
dvisc	0.0010295	Pa×s	314.11	Joback Method
dvisc	0.0008000	Pa×s	353.75	Joback Method
dvisc	0.0006541	Pa×s	393.40	Joback Method
dvisc	0.0005549	Pa×s	433.05	Joback Method
dvisc	0.0004838	Pa×s	472.70	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R71288&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
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