

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
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tb	458.76	K	Joback Method
tc	680.81	K	Joback Method
tf	224.26	K	Joback Method
vc	0.477	m ³ /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	Paxs	224.26	Joback Method

dvisc	0.0022946	Paxs	263.34	Joback Method
dvisc	0.0013547	Paxs	302.43	Joback Method
dvisc	0.0009023	Paxs	341.51	Joback Method
dvisc	0.0006533	Paxs	380.59	Joback Method
dvisc	0.0005024	Paxs	419.68	Joback Method
dvisc	0.0004040	Paxs	458.76	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=R294890&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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

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