

Bicyclo[5.4.0]undecane (trans)

Other names:	trans-Decahydro-1H-benzo[a]cycloheptene trans-Bicyclo[5.4.0]undecane
Inchi:	InChI=1S/C11H20/c1-2-6-10-8-4-5-9-11(10)7-3-1/h10-11H,1-9H2
InchiKey:	GBCQLGDTLMHVHU-UHFFFAOYSA-N
Formula:	C11H20
SMILES:	C1CCC2CCCCC2CC1
Mol. weight [g/mol]:	152.28
CAS:	21394-30-9

Physical Properties

Property code	Value	Unit	Source
gf	102.74	kJ/mol	Joback Method
hf	-155.57	kJ/mol	Joback Method
hfus	10.02	kJ/mol	Joback Method
hvap	40.77	kJ/mol	Joback Method
log10ws	-3.73		Crippen Method
logp	3.757		Crippen Method
mvol	144.130	ml/mol	McGowan Method
pc	2802.44	kPa	Joback Method
rinpol	1206.00		NIST Webbook
tb	485.91	K	Joback Method
tc	713.20	K	Joback Method
tf	232.01	K	Joback Method
vc	0.525	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	334.24	J/mol×K	485.91	Joback Method
cpg	358.53	J/mol×K	523.79	Joback Method
cpg	381.33	J/mol×K	561.67	Joback Method
cpg	402.70	J/mol×K	599.56	Joback Method
cpg	422.69	J/mol×K	637.44	Joback Method
cpg	441.37	J/mol×K	675.32	Joback Method

cpg	458.77	J/molxK	713.20	Joback Method
dvisc	0.0074291	Paxs	232.01	Joback Method
dvisc	0.0029653	Paxs	274.33	Joback Method
dvisc	0.0015129	Paxs	316.64	Joback Method
dvisc	0.0009046	Paxs	358.96	Joback Method
dvisc	0.0006029	Paxs	401.28	Joback Method
dvisc	0.0004341	Paxs	443.59	Joback Method
dvisc	0.0003310	Paxs	485.91	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C21394309&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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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