5-Norbornane-2-carboxaldehyde

Other names:	5-Formylbicyclohept-2-ene
	5-Norbornene-2-carboxaldehyde
	Bicyclo[2.2.1]hept-5-en-2-aldehyde
	2-Formyl-5-norbornene
	5-Formylbicyclo-2-heptene
	Bicyclo[2.2.1]-5-hepten-2-yl-methanal
	Bicyclo[2.2.1]hept-5-ene-2-carbaldehyde
	Bicyclo[2.2.1]hept-5-ene-2-carboxaldehyde
Inchi:	InChI=1S/C8H10O/c9-5-8-4-6-1-2-7(8)3-6/h1-2,5-8H,3-4H2
InchiKey:	AJIBZRIAUXVGQJ-UHFFFAOYSA-N
Formula:	C8H10O
SMILES:	O=CC1CC2C=CC1C2
Mol. weight [g/mol]:	122.16
CAS:	5453-80-5

Physical Properties

Property code	Value	Unit	Source
gf	48.61	kJ/mol	Joback Method
hf	-117.15	kJ/mol	Joback Method
hfus	15.23	kJ/mol	Joback Method
hvap	40.10	kJ/mol	Joback Method
log10ws	-1.37		Crippen Method
logp	1.397		Crippen Method
mcvol	99.130	ml/mol	McGowan Method
pc	3791.65	kPa	Joback Method
tb	443.34	K	Joback Method
tc	653.20	K	Joback Method
tf	250.80	K	Joback Method
vc	0.392	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	211.63	J/mol×K	443.34	Joback Method

cpg	275.63	J/mol×K	618.22	Joback Method
cpg	264.58	J/mol×K	583.25	Joback Method
cpg	252.71	J/mol×K	548.27	Joback Method
cpg	239.97	J/mol×K	513.29	Joback Method
cpg	226.29	J/mol×K	478.32	Joback Method
cpg	285.93	J/mol×K	653.20	Joback Method
dvisc	0.0007902	Pa×s	443.34	Joback Method
dvisc	0.0008034	Pa×s	411.25	Joback Method
dvisc	0.0008192	Pa×s	379.16	Joback Method
dvisc	0.0008384	Pa×s	347.07	Joback Method
dvisc	0.0008620	Pa×s	314.98	Joback Method
dvisc	0.0008918	Pa×s	282.89	Joback Method
dvisc	0.0009308	Pa×s	250.80	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	341.70	K	1.60	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C5453805&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

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
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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