5-Ethylidene-2-norbornene, trans

Other names:	5-Ethylidene-2-norbornene, cis
	Bicyclo[2.2.1]hept-2-ene, 5-ethylidene-, cis
	Bicyclo[2.2.1]hept-2-ene, 5-ethylidene-, trans
	(Z)-5-Ethylidene-bicyclo[2.2.1]hept-2-ene
Inchi:	InChI=1S/C9H12/c1-2-8-5-7-3-4-9(8)6-7/h2-4,7,9H,5-6H2,1H3/b8-2-
InchiKey:	OJOWICOBYCXEKR-WAPJZHGLSA-N
Formula:	C9H12
SMILES:	CC=C1CC2C=CC1C2
Mol. weight [g/mol]:	120.19
CAS:	28304-66-7

Physical Properties

Property code	Value	Unit	Source
chl	-5358.91 ± 0.68	kJ/mol	NIST Webbook
chl	-5358.80 ± 1.60	kJ/mol	NIST Webbook
gf	209.72	kJ/mol	Joback Method
hf	145.70 ± 1.80	kJ/mol	NIST Webbook
hf	146.73 ± 0.89	kJ/mol	NIST Webbook
hfl	102.20 ± 1.70	kJ/mol	NIST Webbook
hfl	102.34 ± 0.84	kJ/mol	NIST Webbook
hfus	14.78	kJ/mol	Joback Method
hvap	44.40	kJ/mol	NIST Webbook
hvap	43.50	kJ/mol	NIST Webbook
hvap	44.30 ± 0.30	kJ/mol	NIST Webbook
hvap	44.39 ± 0.30	kJ/mol	NIST Webbook
log10ws	-2.60		Crippen Method
logp	2.529		Crippen Method
mcvol	107.350	ml/mol	McGowan Method
pc	3400.00 ± 400.00	kPa	NIST Webbook
rhoc	294.47 ± 14.42	kg/m3	NIST Webbook
rinpol	910.00		NIST Webbook
rinpol	895.40		NIST Webbook
rinpol	915.00		NIST Webbook
rinpol	916.00		NIST Webbook
rinpol	922.60		NIST Webbook
rinpol	906.50		NIST Webbook
rinpol	921.00		NIST Webbook

rinpol	934.80		NIST Webbook
rinpol	928.50		NIST Webbook
rinpol	911.00		NIST Webbook
rinpol	905.00		NIST Webbook
rinpol	915.00		NIST Webbook
rinpol	891.80		NIST Webbook
rinpol	934.80		NIST Webbook
rinpol	911.00		NIST Webbook
rinpol	928.40		NIST Webbook
rinpol	900.60		NIST Webbook
rinpol	891.80		NIST Webbook
tb	428.87	K	Joback Method
tc	629.00 ± 8.00	K	NIST Webbook
tf	234.67	K	Joback Method
vc	0.414	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	259.64	J/mol×K	533.49	Joback Method
cpg	295.25	J/mol×K	638.10	Joback Method
cpg	284.20	J/mol×K	603.23	Joback Method
cpg	272.35	J/mol×K	568.36	Joback Method
cpg	215.63	J/mol×K	428.87	Joback Method
cpg	231.35	J/mol×K	463.74	Joback Method
cpg	246.00	J/mol×K	498.61	Joback Method
dvisc	0.0004759	Pa×s	428.87	Joback Method
dvisc	0.0005211	Pa×s	331.77	Joback Method
dvisc	0.0005029	Pa×s	364.14	Joback Method
dvisc	0.0004881	Pa×s	396.50	Joback Method
dvisc	0.0006149	Pa×s	234.67	Joback Method
dvisc	0.0005742	Pa×s	267.04	Joback Method
dvisc	0.0005441	Pa×s	299.40	Joback Method
hvapt	35.20 ± 0.50	kJ/mol	388.50	NIST Webbook
hvapt	38.00 ± 0.30	kJ/mol	388.50	NIST Webbook
hvapt	40.50 ± 0.30	kJ/mol	388.50	NIST Webbook
hvapt	43.00 ± 0.30	kJ/mol	388.50	NIST Webbook

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=C28304667&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rhoc:	Critical density
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume