1H-Indene, octahydro-

Other names:	1H-Indene, perhydro
	Bicyclo[4.3.0]nonane,c&t
	bicyclo[4.3.0]nonane
	hexahydroindan
	hexahydroindane
	hydrindan
	hydrindane
	indan, hexahydro-
	perhydroindene
Inchi:	InChI=1S/C9H16/c1-2-5-9-7-3-6-8(9)4-1/h8-9H,1-7H2
InchiKey:	BNRNAKTVFSZAFA-UHFFFAOYSA-N
Formula:	C9H16
SMILES:	C1CCC2CCCC2C1
Mol. weight [g/mol]:	124.22
CAS:	496-10-6

Physical Properties

Property code	Value	Unit	Source
chl	-5588.60	kJ/mol	NIST Webbook
gf	110.10	kJ/mol	Joback Method
hf	-101.97	kJ/mol	Joback Method
hfus	9.04	kJ/mol	Joback Method
hvap	35.97	kJ/mol	Joback Method
log10ws	-2.90		Crippen Method
logp	2.977		Crippen Method
mcvol	115.950	ml/mol	McGowan Method
pc	3276.53	kPa	Joback Method
rinpol	977.00		NIST Webbook
rinpol	940.00		NIST Webbook
rinpol	977.00		NIST Webbook
rinpol	999.00		NIST Webbook
rinpol	991.00		NIST Webbook
tb	437.00 ± 10.00	K	NIST Webbook
tc	647.88	K	Joback Method
tf	230.00 ± 1.66	K	NIST Webbook
vc	0.429	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	240.94	J/mol×K	431.61	Joback Method
cpg	261.35	J/mol×K	467.66	Joback Method
cpg	280.52	J/mol×K	503.70	Joback Method
cpg	298.50	J/mol×K	539.75	Joback Method
cpg	315.35	J/mol×K	575.79	Joback Method
cpg	331.12	J/mol×K	611.84	Joback Method
cpg	345.88	J/mol×K	647.88	Joback Method
cpl	217.10	J/mol×K	313.00	NIST Webbook
cpl	219.70	J/mol×K	311.00	NIST Webbook
dvisc	0.0026731	Pa×s	216.51	Joback Method
dvisc	0.0016168	Pa×s	252.36	Joback Method
dvisc	0.0011082	Pa×s	288.21	Joback Method
dvisc	0.0008258	Pa×s	324.06	Joback Method
dvisc	0.0006525	Pa×s	359.91	Joback Method
dvisc	0.0005380	Pa×s	395.76	Joback Method
dvisc	0.0004581	Pa×s	431.61	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Infinite dilution activity coefficients, specific retention volumes and solvation thermodynamics of hydrocarbons in C78H158 branched alkane solvent:	https://www.doi.org/10.1016/j.fluid.2006.07.015
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=C496106&Units=SI

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase 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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