1,3-Nonadiene, (E)-

Other names:	(E)-n-C5H11CH=CHCH=CH2
	(E)-1,3-Nonadiene
	(3E)-1,3-Nonadiene
	1,trans-3-Nonadiene
	trans-1,3-Nonadiene
Inchi:	InChI=1S/C9H16/c1-3-5-7-9-8-6-4-2/h3,5,7H,1,4,6,8-9H2,2H3/b7-5+
InchiKey:	CLNYHERYALISIR-FNORWQNLSA-N
Formula:	C9H16
SMILES:	C=CC=CCCCCC
Mol. weight [g/mol]:	124.22
CAS:	56700-77-7

Physical Properties

Property code	Value	Unit	Source
gf	192.96	kJ/mol	Joback Method
hf	13.56	kJ/mol	Joback Method
hfus	17.99	kJ/mol	Joback Method
hvap	34.92	kJ/mol	Joback Method
ie	8.44	eV	NIST Webbook
log10ws	-3.30		Crippen Method
logp	3.309		Crippen Method
mcvol	129.070	ml/mol	McGowan Method
pc	2530.27	kPa	Joback Method
rinpol	909.70		NIST Webbook
rinpol	924.00		NIST Webbook
rinpol	924.00		NIST Webbook
rinpol	909.70		NIST Webbook
ripol	1047.00		NIST Webbook
ripol	1046.00		NIST Webbook
ripol	1045.00		NIST Webbook
tb	406.16	K	Joback Method
tc	580.81	K	Joback Method
tf	184.35	K	Joback Method
vc	0.500	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	242.68	J/mol×K	406.16	Joback Method
cpg	304.08	J/mol×K	551.71	Joback Method
cpg	292.93	J/mol×K	522.60	Joback Method
cpg	281.24	J/mol×K	493.49	Joback Method
cpg	268.99	J/mol×K	464.38	Joback Method
cpg	256.14	J/mol×K	435.27	Joback Method
cpg	314.71	J/mol×K	580.81	Joback Method
dvisc	0.0001978	Pa×s	406.16	Joback Method
dvisc	0.0002575	Pa×s	369.19	Joback Method
dvisc	0.0003554	Pa×s	332.22	Joback Method
dvisc	0.0005317	Pa×s	295.25	Joback Method
dvisc	0.0008927	Pa×s	258.29	Joback Method
dvisc	0.0017822	Pa×s	221.32	Joback Method
dvisc	0.0046945	Pa×s	184.35	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C56700777&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

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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

ie: Ionization energy

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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume