

1,trans-7-nonadiene

Other names:	(E)-1,7-Nonadiene
Inchi:	InChI=1S/C9H16/c1-3-5-7-9-8-6-4-2/h3-4,6H,1,5,7-9H2,2H3/b6-4+
InchiKey:	POZQPLMVTQPOTQ-GQCTYLIASA-N
Formula:	C9H16
SMILES:	C=CCCCC=CC
Mol. weight [g/mol]:	124.22

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
log10ws	-3.30		Crippen Method
logp	3.309		Crippen Method
mvol	129.070	ml/mol	McGowan Method
pc	2530.27	kPa	Joback Method
rinpol	880.00		NIST Webbook
rinpol	879.10		NIST Webbook
tb	406.16	K	Joback Method
tc	580.81	K	Joback Method
tf	184.35	K	Joback Method
vc	0.500	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	242.68	J/mol×K	406.16	Joback Method
cpg	256.14	J/mol×K	435.27	Joback Method
cpg	268.99	J/mol×K	464.38	Joback Method
cpg	281.24	J/mol×K	493.49	Joback Method
cpg	292.93	J/mol×K	522.60	Joback Method
cpg	304.08	J/mol×K	551.71	Joback Method
cpg	314.71	J/mol×K	580.81	Joback Method

dvisc	0.0046945	Paxs	184.35	Joback Method
dvisc	0.0017822	Paxs	221.32	Joback Method
dvisc	0.0008927	Paxs	258.29	Joback Method
dvisc	0.0005317	Paxs	295.25	Joback Method
dvisc	0.0003554	Paxs	332.22	Joback Method
dvisc	0.0002575	Paxs	369.19	Joback Method
dvisc	0.0001978	Paxs	406.16	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R2045&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
mvol:	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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