trans-3,trans-5-nonadiene

Inchi: InChI=1S/C9H16/c1-3-5-7-9-8-6-4-2/h5,7-9H,3-4,6H2,1-2H3/b7-5+,9-8+
InchiKey: UAIFRPNEQVBFHH-ZIRGRKGMSA-N
Formula: C9H16
SMILES: CCC=CC=CCCC
Mol. weight [g/mol]: 124.22

Physical Properties

Property code	Value	Unit	Source
gf	185.34	kJ/mol	Joback Method
hf	5.35	kJ/mol	Joback Method
hfus	19.47	kJ/mol	Joback Method
hvap	35.54	kJ/mol	Joback Method
log10ws	-3.30		Crippen Method
logp	3.309		Crippen Method
mcvol	129.070	ml/mol	McGowan Method
pc	2555.92	kPa	Joback Method
rinpol	934.50		NIST Webbook
tb	413.64	K	Joback Method
tc	593.38	K	Joback Method
tf	181.03	K	Joback Method
vc	0.499	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	243.26	J/mol×K	413.64	Joback Method
cpg	305.81	J/mol×K	563.42	Joback Method
cpg	294.54	J/mol×K	533.47	Joback Method
cpg	282.68	J/mol×K	503.51	Joback Method
cpg	270.20	J/mol×K	473.55	Joback Method
cpg	257.07	J/mol×K	443.60	Joback Method
cpg	316.52	J/mol×K	593.38	Joback Method
dvisc	0.0001668	Pa×s	413.64	Joback Method
dvisc	0.0002202	Pa×s	374.87	Joback Method

dvisc	0.0003099	Pa×s	336.10	Joback Method
dvisc	0.0004768	Pa×s	297.33	Joback Method
dvisc	0.0008346	Pa×s	258.57	Joback Method
dvisc	0.0017800	Pa×s	219.80	Joback Method
dvisc	0.0052511	Pa×s	181.03	Joback Method

Sources

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R250221&Units=SI

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
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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