3,5-Octadiene, (Z,Z)-

Other names: (3Z,5Z)-3,5-Octadiene
cis-3,cis-5-Octadiene
Inchi: InChI=1S/C8H14/c1-3-5-7-8-6-4-2/h5-8H,3-4H2,1-2H3/b7-5-,8-6-
InchiKey: HWXQYUCHSICMAS-SFECMWDFSA-N
Formula: C8H14
SMILES: CCC=CC=CCC
Mol. weight [g/mol]: 110.20
CAS: 7348-80-3

Physical Properties

Property code	Value	Unit	Source
gf	176.92	kJ/mol	Joback Method
hf	25.99	kJ/mol	Joback Method
hfus	16.88	kJ/mol	Joback Method
hvap	33.32	kJ/mol	Joback Method
log10ws	-2.88		Crippen Method
logp	2.919		Crippen Method
mcvol	114.980	ml/mol	McGowan Method
pc	2823.32	kPa	Joback Method
rinpol	835.90		NIST Webbook
rinpol	841.40		NIST Webbook
rinpol	836.60		NIST Webbook
rinpol	835.90		NIST Webbook
tb	390.76	K	Joback Method
tc	571.58	K	Joback Method
tf	169.76	K	Joback Method
vc	0.444	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	203.62	J/mol×K	390.76	Joback Method
cpg	216.35	J/mol×K	420.90	Joback Method
cpg	228.43	J/mol×K	451.03	Joback Method

cpg	239.90	J/mol×K	481.17	Joback Method
cpg	250.79	J/mol×K	511.30	Joback Method
cpg	261.13	J/mol×K	541.44	Joback Method
cpg	270.94	J/mol×K	571.58	Joback Method
dvisc	0.0049045	Pa×s	169.76	Joback Method
dvisc	0.0016869	Pa×s	206.59	Joback Method
dvisc	0.0008014	Pa×s	243.43	Joback Method
dvisc	0.0004630	Pa×s	280.26	Joback Method
dvisc	0.0003039	Pa×s	317.09	Joback Method
dvisc	0.0002177	Pa×s	353.93	Joback Method
dvisc	0.0001661	Pa×s	390.76	Joback Method

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=C7348803&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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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