trans-3-Hexadecene

Other names: (E)-3-Hexadecene
3-Hexadecene, (E)
Inchi: InChI=1S/C16H32/c1-3-5-7-9-11-13-15-16-14-12-10-8-6-4-2/h5,7H,3-4,6,8-16H2,1-2H3/b
InchiKey: QIZDLUWRENVVJW-FNORWQNLSA-N
Formula: C16H32
SMILES: CCC=CCCCCCCCCCCC
Mol. weight [g/mol]: 224.43

Physical Properties

Property code	Value	Unit	Source
gf	164.06	kJ/mol	Joback Method
hf	-256.35	kJ/mol	Joback Method
hfus	37.40	kJ/mol	Joback Method
hvap	51.17	kJ/mol	Joback Method
log10ws	-6.37		Crippen Method
logp	6.264		Crippen Method
mcvol	232.000	ml/mol	McGowan Method
pc	1369.71	kPa	Joback Method
rinpol	1585.70		NIST Webbook
rinpol	1584.00		NIST Webbook
rinpol	1585.00		NIST Webbook
rinpol	1584.60		NIST Webbook
ripol	1623.00		NIST Webbook
ripol	1621.80		NIST Webbook
tb	569.64	K	Joback Method
tc	733.96	K	Joback Method
tf	265.00	K	Joback Method
vc	0.911	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	593.58	J/mol×K	569.64	Joback Method
cpg	680.43	J/mol×K	706.57	Joback Method

cpg	664.52	J/mol×K	679.18	Joback Method
cpg	647.91	J/mol×K	651.80	Joback Method
cpg	630.57	J/mol×K	624.41	Joback Method
cpg	612.46	J/mol×K	597.03	Joback Method
cpg	695.67	J/mol×K	733.96	Joback Method
dvisc	0.0001297	Pa×s	569.64	Joback Method
dvisc	0.0001765	Pa×s	518.87	Joback Method
dvisc	0.0002567	Pa×s	468.09	Joback Method
dvisc	0.0004092	Pa×s	417.32	Joback Method
dvisc	0.0007420	Pa×s	366.55	Joback Method
dvisc	0.0016294	Pa×s	315.77	Joback Method
dvisc	0.0048369	Pa×s	265.00	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=R97812&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
ripol: Polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point

vc: Critical Volume