

trans-7-Hexadecene

Other names:	(E)-7-Hexadecene 7-Hexadecene, (E)
Inchi:	InChI=1S/C16H32/c1-3-5-7-9-11-13-15-16-14-12-10-8-6-4-2/h13,15H,3-12,14,16H2,1-2H
InchiKey:	JZPUSPPFVAJNGY-FYWRMAATSA-N
Formula:	C16H32
SMILES:	CCCCCCC=CCCCCCCC
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	1574.00		NIST Webbook
rinpol	1574.70		NIST Webbook
rinpol	1573.00		NIST Webbook
rinpol	1575.70		NIST Webbook
rinpol	1574.70		NIST Webbook
ripol	1609.00		NIST Webbook
ripol	1608.60		NIST Webbook
ripol	1609.00		NIST Webbook
tb	569.64	K	Joback Method
tc	733.96	K	Joback Method
tf	265.00	K	Joback Method
vc	0.911	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
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cpg	593.58	J/molxK	569.64	Joback Method
cpg	612.46	J/molxK	597.03	Joback Method
cpg	630.57	J/molxK	624.41	Joback Method
cpg	647.91	J/molxK	651.80	Joback Method
cpg	664.52	J/molxK	679.18	Joback Method
cpg	680.43	J/molxK	706.57	Joback Method
cpg	695.67	J/molxK	733.96	Joback Method
dvisc	0.0048369	Paxs	265.00	Joback Method
dvisc	0.0016294	Paxs	315.77	Joback Method
dvisc	0.0007420	Paxs	366.55	Joback Method
dvisc	0.0004092	Paxs	417.32	Joback Method
dvisc	0.0002567	Paxs	468.09	Joback Method
dvisc	0.0001765	Paxs	518.87	Joback Method
dvisc	0.0001297	Paxs	569.64	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=R97894&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
mccvol:	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

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