

(Z)-4-Methyl-2-hexene

Other names:	2-Hexene, 4-methyl-, (Z)- 4-METHYL-CIS-2-HEXENE 4-Methyl-2-hexene (cis) CIS-4-METHYL-2-HEXENE
Inchi:	InChI=1S/C7H14/c1-4-6-7(3)5-2/h4,6-7H,5H2,1-3H3/b6-4-
InchiKey:	MBNDKEPQUVZHCM-XQRVVYSFSA-N
Formula:	C7H14
SMILES:	CC=CC(C)CC
Mol. weight [g/mol]:	98.19
CAS:	3683-19-0

Physical Properties

Property code	Value	Unit	Source
gf	85.84	kJ/mol	Joback Method
hf	-75.87	kJ/mol	Joback Method
hfus	10.56	kJ/mol	Joback Method
hvap	34.70	kJ/mol	NIST Webbook
log10ws	-2.36		Crippen Method
logp	2.609		Crippen Method
mcvol	105.190	ml/mol	McGowan Method
pc	2986.06	kPa	Joback Method
rinpol	659.00		NIST Webbook
rinpol	662.00		NIST Webbook
rinpol	660.00		NIST Webbook
rinpol	661.20		NIST Webbook
rinpol	663.00		NIST Webbook
rinpol	666.00		NIST Webbook
rinpol	666.00		NIST Webbook
rinpol	655.00		NIST Webbook
rinpol	656.00		NIST Webbook
rinpol	656.40		NIST Webbook
rinpol	658.40		NIST Webbook
rinpol	658.40		NIST Webbook
rinpol	655.00		NIST Webbook
rinpol	665.80		NIST Webbook
rinpol	657.00		NIST Webbook
rinpol	657.00		NIST Webbook

rinpol	666.20		NIST Webbook
rinpol	667.60		NIST Webbook
rinpol	654.20		NIST Webbook
rinpol	657.00		NIST Webbook
rinpol	666.00		NIST Webbook
rinpol	657.00		NIST Webbook
rinpol	661.00		NIST Webbook
rinpol	657.00		NIST Webbook
rinpol	653.60		NIST Webbook
rinpol	656.00		NIST Webbook
tb	358.50 ± 1.00	K	NIST Webbook
tb	359.50	K	NIST Webbook
tb	359.50 ± 0.40	K	NIST Webbook
tb	359.41 ± 0.20	K	NIST Webbook
tb	359.52 ± 0.30	K	NIST Webbook
tc	539.72	K	Joback Method
tf	148.57	K	Joback Method
vc	0.402	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	245.01	J/molxK	539.72	Joback Method
cpg	180.16	J/molxK	363.28	Joback Method
cpg	192.22	J/molxK	392.69	Joback Method
cpg	203.76	J/molxK	422.09	Joback Method
cpg	214.79	J/molxK	451.50	Joback Method
cpg	225.33	J/molxK	480.91	Joback Method
cpg	235.39	J/molxK	510.31	Joback Method
dvisc	0.0001915	Paxs	363.28	Joback Method
dvisc	0.0095853	Paxs	148.57	Joback Method
dvisc	0.0026515	Paxs	184.35	Joback Method
dvisc	0.0011138	Paxs	220.14	Joback Method
dvisc	0.0005963	Paxs	255.92	Joback Method
dvisc	0.0003722	Paxs	291.71	Joback Method
dvisc	0.0002575	Paxs	327.50	Joback Method
hvapt	33.50	kJ/mol	348.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.39984e+01
Coeff. B	-2.90251e+03
Coeff. C	-5.00260e+01
Temperature range (K), min.	261.72
Temperature range (K), max.	384.15

Sources

KDB:	https://www.thermo.com/research/kdb/hcprop/showprop.php?cmpid=225
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3683190&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpolar:	Non-polar retention indices

tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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