7-Tetradecene, (Z)-

Other names: (7Z)-7-Tetradecene
7-(Z)-Tetradecene
cis-7-Tetradecene
(Z)-7-Tetradecene
Inchi: InChI=1S/C14H28/c1-3-5-7-9-11-13-14-12-10-8-6-4-2/h13-14H,3-12H2,1-2H3/b14-13-
InchiKey: UBDIXSAEHLOROW-YPKPFQOOSA-N
Formula: C14H28
SMILES: CCCCCCC=CCCCCCC
Mol. weight [g/mol]: 196.37
CAS: 41446-60-0

Physical Properties

Property code	Value	Unit	Source
gf	147.22	kJ/mol	Joback Method
hf	-215.07	kJ/mol	Joback Method
hfus	32.22	kJ/mol	Joback Method
hvap	46.72	kJ/mol	Joback Method
log10ws	-5.54		Crippen Method
logp	5.483		Crippen Method
mcvol	203.820	ml/mol	McGowan Method
pc	1587.28	kPa	Joback Method
rinpol	1369.00		NIST Webbook
rinpol	1379.00		NIST Webbook
rinpol	1365.50		NIST Webbook
rinpol	1367.00		NIST Webbook
rinpol	1367.00		NIST Webbook
rinpol	1378.00		NIST Webbook
ripol	1432.00		NIST Webbook
ripol	1414.80		NIST Webbook
ripol	1421.10		NIST Webbook
ripol	1422.40		NIST Webbook
ripol	1411.00		NIST Webbook
ripol	1418.00		NIST Webbook
ripol	1418.00		NIST Webbook
ripol	1420.00		NIST Webbook
ripol	1412.00		NIST Webbook
ripol	1418.00		NIST Webbook

ripol	1420.00		NIST Webbook
ripol	1420.00		NIST Webbook
ripol	1414.00		NIST Webbook
ripol	1421.00		NIST Webbook
ripol	1421.00		NIST Webbook
ripol	1431.00		NIST Webbook
ripol	1465.00		NIST Webbook
ripol	1433.00		NIST Webbook
ripol	1435.00		NIST Webbook
ripol	1437.00		NIST Webbook
ripol	1427.00		NIST Webbook
ripol	1428.00		NIST Webbook
ripol	1429.00		NIST Webbook
ripol	1430.00		NIST Webbook
ripol	1432.00		NIST Webbook
ripol	1410.20		NIST Webbook
ripol	1418.70		NIST Webbook
ripol	1412.50		NIST Webbook
ripol	1419.50		NIST Webbook
ripol	1408.30		NIST Webbook
ripol	1411.10		NIST Webbook
ripol	1417.60		NIST Webbook
ripol	1418.00		NIST Webbook
ripol	1410.00		NIST Webbook
ripol	1412.20		NIST Webbook
ripol	1418.50		NIST Webbook
ripol	1419.70		NIST Webbook
ripol	1431.00		NIST Webbook
ripol	1465.00		NIST Webbook
ripol	1435.00		NIST Webbook
ripol	1437.00		NIST Webbook
ripol	1433.00		NIST Webbook
tb	523.88	K	Joback Method
tc	689.82	K	Joback Method
tf	242.46	K	Joback Method
vc	0.799	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	488.90	J/mol×K	523.88	Joback Method

cpg	571.08	J/mol×K	662.16	Joback Method
cpg	556.03	J/mol×K	634.51	Joback Method
cpg	540.31	J/mol×K	606.85	Joback Method
cpg	523.90	J/mol×K	579.19	Joback Method
cpg	506.77	J/mol×K	551.54	Joback Method
cpg	585.50	J/mol×K	689.82	Joback Method
dvisc	0.0001553	Pa×s	523.88	Joback Method
dvisc	0.0002098	Pa×s	476.98	Joback Method
dvisc	0.0003029	Pa×s	430.07	Joback Method
dvisc	0.0004782	Pa×s	383.17	Joback Method
dvisc	0.0008577	Pa×s	336.27	Joback Method
dvisc	0.0018593	Pa×s	289.36	Joback Method
dvisc	0.0054364	Pa×s	242.46	Joback Method

Sources

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=C41446600&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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