

Tetradecane, 7-methyl

Other names:	7-Methyltetradecane
Inchi:	InChI=1S/C15H32/c1-4-6-8-10-12-14-15(3)13-11-9-7-5-2/h15H,4-14H2,1-3H3
InchiKey:	QUMVEMCGRQYIQG-UHFFFAOYSA-N
Formula:	C15H32
SMILES:	CCCCCCCC(C)CCCCC
Mol. weight [g/mol]:	212.41
CAS:	6165-39-5

Physical Properties

Property code	Value	Unit	Source
gf	72.98	kJ/mol	Joback Method
hf	-358.21	kJ/mol	Joback Method
hfus	31.08	kJ/mol	Joback Method
hvap	48.60	kJ/mol	Joback Method
log10ws	-5.86		Crippen Method
logp	5.953		Crippen Method
mcvol	222.210	ml/mol	McGowan Method
pc	1423.99	kPa	Joback Method
rinpol	1443.00		NIST Webbook
rinpol	1450.10		NIST Webbook
rinpol	1450.00		NIST Webbook
rinpol	1443.00		NIST Webbook
tb	542.16	K	Joback Method
tc	703.93	K	Joback Method
tf	225.00 ± 2.00	K	NIST Webbook
vc	0.870	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	558.22	J/mol×K	542.16	Joback Method
cpg	646.08	J/mol×K	676.97	Joback Method
cpg	629.92	J/mol×K	650.00	Joback Method
cpg	613.07	J/mol×K	623.04	Joback Method

cpg	595.52	J/molxK	596.08	Joback Method
cpg	577.24	J/molxK	569.12	Joback Method
cpg	661.59	J/molxK	703.93	Joback Method
dvisc	0.0001577	Paxs	542.16	Joback Method
dvisc	0.0002189	Paxs	492.43	Joback Method
dvisc	0.0003270	Paxs	442.71	Joback Method
dvisc	0.0005409	Paxs	392.99	Joback Method
dvisc	0.0010352	Paxs	343.26	Joback Method
dvisc	0.0024681	Paxs	293.53	Joback Method
dvisc	0.0083877	Paxs	243.81	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C6165395&Units=SI
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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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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