Tetradecane, 1-iodo-

Other names:	1-Iodotetradecane
	Tetradecyl iodide
Inchi:	InChI=1S/C14H29I/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15/h2-14H2,1H3
InchiKey:	FHQCFGPKNSSISL-UHFFFAOYSA-N
Formula:	C14H29I
SMILES:	CCCCCCCCCCCCCCI
Mol. weight [g/mol]:	324.28
CAS:	19218-94-1

Physical Properties

Property code	Value	Unit	Source
gf	125.12	kJ/mol	Joback Method
hf	-255.42	kJ/mol	Joback Method
hfus	36.42	kJ/mol	Joback Method
hvap	90.00	kJ/mol	NIST Webbook
log10ws	-6.63		Crippen Method
logp	6.123		Crippen Method
mcvol	233.940	ml/mol	McGowan Method
pc	1497.67	kPa	Joback Method
tb	612.86	K	Joback Method
tc	795.72	K	Joback Method
tf	305.60	K	Joback Method
vc	0.907	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	580.47	J/mol×K	612.86	Joback Method
cpg	597.99	J/mol×K	643.34	Joback Method
cpg	614.69	J/mol×K	673.81	Joback Method
cpg	630.60	J/mol×K	704.29	Joback Method
cpg	645.76	J/mol×K	734.77	Joback Method
cpg	660.19	J/mol×K	765.25	Joback Method
cpg	673.94	J/mol×K	795.72	Joback Method

dvisc	0.0042625	Pa×s	305.60	Joback Method
dvisc	0.0016788	Pa×s	356.81	Joback Method
dvisc	0.0008354	Pa×s	408.02	Joback Method
dvisc	0.0004857	Pa×s	459.23	Joback Method
dvisc	0.0003149	Pa×s	510.44	Joback Method
dvisc	0.0002209	Pa×s	561.65	Joback Method
dvisc	0.0001644	Pa×s	612.86	Joback Method
hvapt	68.60	kJ/mol	562.00	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.66330e+01
Coeff. B	-5.69956e+03
Coeff. C	-1.08826e+02
Temperature range (K), min.	457.52
Temperature range (K), max.	612.25

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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=C19218941&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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