

Cycloheptasiloxane, tetradecamethyl-

Other names:	Tetradecamethylcycloheptasiloxane
Inchi:	InChI=1S/C14H42O7Si7/c1-22(2)15-23(3,4)17-25(7,8)19-27(11,12)21-28(13,14)20-26(9,
InchiKey:	GSANOGQCVHBHIF-UHFFFAOYSA-N
Formula:	C14H42O7Si7
SMILES:	C[Si]1(C)O[Si](C)(C)O[Si](C)(C)O[Si](C)(C)O[Si](C)(C)O[Si](C)(C)O[Si](C)(C)O[Si](C)(C)O1
Mol. weight [g/mol]:	519.08
CAS:	107-50-6

Physical Properties

Property code	Value	Unit	Source
log10ws	10.38		Crippen Method
logp	5.029		Crippen Method
rinpol	1531.00		NIST Webbook
rinpol	1516.00		NIST Webbook
rinpol	1538.00		NIST Webbook
rinpol	1526.00		NIST Webbook
rinpol	1526.00		NIST Webbook
rinpol	1527.00		NIST Webbook
rinpol	1519.00		NIST Webbook
rinpol	1537.00		NIST Webbook
rinpol	1538.00		NIST Webbook
rinpol	1518.00		NIST Webbook
rinpol	1516.00		NIST Webbook
rinpol	1519.00		NIST Webbook
rinpol	1526.00		NIST Webbook
rinpol	1538.00		NIST Webbook
tf	238.00 ± 0.10	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hfust	20.88	kJ/mol	237.70	NIST Webbook
hvapt	58.60	kJ/mol	448.00	NIST Webbook
hvapt	60.60	kJ/mol	489.50	NIST Webbook

pvap	0.01	kPa	338.15	Temperature-Dependent Vapor Pressure of Selected Cyclic and Linear Polydimethylsiloxane Oligomers
pvap	0.02	kPa	348.15	Temperature-Dependent Vapor Pressure of Selected Cyclic and Linear Polydimethylsiloxane Oligomers
pvap	0.04	kPa	358.15	Temperature-Dependent Vapor Pressure of Selected Cyclic and Linear Polydimethylsiloxane Oligomers
pvap	0.53	kPa	398.15	Temperature-Dependent Vapor Pressure of Selected Cyclic and Linear Polydimethylsiloxane Oligomers
pvap	0.91	kPa	408.15	Temperature-Dependent Vapor Pressure of Selected Cyclic and Linear Polydimethylsiloxane Oligomers
pvap	1.54	kPa	418.15	Temperature-Dependent Vapor Pressure of Selected Cyclic and Linear Polydimethylsiloxane Oligomers
pvap	0.09	kPa	368.15	Temperature-Dependent Vapor Pressure of Selected Cyclic and Linear Polydimethylsiloxane Oligomers
pvap	0.16	kPa	378.15	Temperature-Dependent Vapor Pressure of Selected Cyclic and Linear Polydimethylsiloxane Oligomers
pvap	0.30	kPa	388.15	Temperature-Dependent Vapor Pressure of Selected Cyclic and Linear Polydimethylsiloxane Oligomers

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.cheméo.com/doc/models/crippen_log10ws
Temperature-Dependent Vapor Pressure of Selected Cyclic and Linear Polydimethylsiloxane Oligomers:	https://www.doi.org/10.1021/je100835n
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C107506&Units=SI

Legend

hfust:	Enthalpy of fusion at a given temperature
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tf:	Normal melting (fusion) point

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