

2,4,6,8,10-Pentamethylcyclopentasiloxane

Other names:	1,3,5,7,9-Pentamethylcyclopentasiloxane
Inchi:	InChI=1S/C5H20O5Si5/c1-11-6-12(2)8-14(4)10-15(5)9-13(3)7-11/h11-15H,1-5H3
InchiKey:	HGPDWMTUQRNTQT-UHFFFAOYSA-N
Formula:	C5H20O5Si5
SMILES:	C[SiH]1O[SiH](C)O[SiH](C)O[SiH](C)O[SiH](C)O1
Mol. weight [g/mol]:	300.64
CAS:	6166-86-5

Physical Properties

Property code	Value	Unit	Source
hvap	47.00 ± 0.90	kJ/mol	NIST Webbook
log10ws	10.69		Crippen Method
logp	-0.666		Crippen Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
pvap	1.32	kPa	330.80	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	3.33	kPa	348.03	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	5.33	kPa	357.45	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer

pvap	7.33	kPa	364.75	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	9.32	kPa	370.73	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	11.32	kPa	375.49	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	13.32	kPa	378.23	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	15.32	kPa	381.78	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	17.32	kPa	385.02	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	19.32	kPa	387.96	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	

pvap	21.32	kPa	390.75	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	23.32	kPa	393.18	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	25.32	kPa	395.46	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	27.32	kPa	397.89	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	29.32	kPa	399.92	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	31.32	kPa	401.90	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	33.33	kPa	403.77	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer

pvap	35.33	kPa	405.70	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	37.33	kPa	407.22	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	39.33	kPa	408.94	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	41.33	kPa	410.46	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	43.33	kPa	411.98	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	45.33	kPa	413.40	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	
pvap	47.33	kPa	414.87	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer	

pvap	49.33	kPa	416.19	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	51.33	kPa	417.55	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	61.33	kPa	423.53	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	71.33	kPa	429.06	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	81.33	kPa	433.77	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer
pvap	91.33	kPa	437.93	Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer

Sources

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Measurement and correlation of saturated vapor pressure of 2,4,6,8,10-pentamethylcyclopentasiloxane by means of an inclined ebulliometer: <https://www.doi.org/10.1016/j.tca.2008.11.005>
NIST Webbook: <http://webbook.nist.gov/cgi/cbook.cgi?ID=C6166865&Units=SI>
Crippen Method: <http://pubs.acs.org/doi/abs/10.1021/ci990307l>

Legend

h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀w_s:	Log10 of Water solubility in mol/l
log_p:	Octanol/Water partition coefficient
p_{vap}:	Vapor pressure

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