

1,3,5,7-Tetramethyl-1,3,5,7-tetravinylcyclotetrasiloxane

Other names:	2,4,6,8-tetramethyl-2,4,6,8-tetraethenylcyclotetrasiloxane 2,4,6,8-tetramethyl-2,4,6,8-tetravinylcyclotetrasiloxane
Inchi:	InChI=1S/C12H24O4Si4/c1-9-17(5)13-18(6,10-2)15-20(8,12-4)16-19(7,11-3)14-17/h9-12
InchiKey:	VMAWODUEPLAHOE-UHFFFAOYSA-N
Formula:	C12H24O4Si4
SMILES:	C=C[Si]1(C)O[Si](C)(C=C)O[Si](C)(C=C)O[Si](C)(C=C)O1
Mol. weight [g/mol]:	344.66

Physical Properties

Property code	Value	Unit	Source
log10ws	4.62		Crippen Method
logp	3.255		Crippen Method
rinpol	1512.00		NIST Webbook
rinpol	1512.00		NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
rfi	1.43415		293.15	Volumetric and refractive properties of 1,3,5,7-tetravinyl-1,3,5,7-tetramethylcyclotetrasiloxane with methoxybenzene, chlorobenzene, tert-butylbenzene and nitrobenzene at T = (298.15-318.15) K

rfi	1.43231	298.15	Volumetric and refractive properties of 1,3,5,7-tetravinyl-1,3,5,7-tetramethylcyclotetrasiloxane with methoxybenzene, chlorobenzene, tert-butylbenzene and nitrobenzene at T = (298.15-318.15) K
rfi	1.42994	303.15	Volumetric and refractive properties of 1,3,5,7-tetravinyl-1,3,5,7-tetramethylcyclotetrasiloxane with methoxybenzene, chlorobenzene, tert-butylbenzene and nitrobenzene at T = (298.15-318.15) K
rfi	1.42756	308.15	Volumetric and refractive properties of 1,3,5,7-tetravinyl-1,3,5,7-tetramethylcyclotetrasiloxane with methoxybenzene, chlorobenzene, tert-butylbenzene and nitrobenzene at T = (298.15-318.15) K
rfi	1.42521	313.15	Volumetric and refractive properties of 1,3,5,7-tetravinyl-1,3,5,7-tetramethylcyclotetrasiloxane with methoxybenzene, chlorobenzene, tert-butylbenzene and nitrobenzene at T = (298.15-318.15) K
rfi	1.42284	318.15	Volumetric and refractive properties of 1,3,5,7-tetravinyl-1,3,5,7-tetramethylcyclotetrasiloxane with methoxybenzene, chlorobenzene, tert-butylbenzene and nitrobenzene at T = (298.15-318.15) K

rhoI	987.65	kg/m3	293.15	The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl) cyclotrisiloxane with various organosilicon compounds at different temperatures
rhoI	982.54	kg/m3	298.15	Effect of temperature and composition on the density, refractive index, and excess quantities of binary mixtures of 2,4,6,8-tetramethyl-2,4,6,8-tetraethenylcyclotetrasiloxane with aromatic hydrocarbons
rhoI	972.34	kg/m3	308.15	Effect of temperature and composition on the density, refractive index, and excess quantities of binary mixtures of 2,4,6,8-tetramethyl-2,4,6,8-tetraethenylcyclotetrasiloxane with aromatic hydrocarbons
rhoI	962.14	kg/m3	318.15	Effect of temperature and composition on the density, refractive index, and excess quantities of binary mixtures of 2,4,6,8-tetramethyl-2,4,6,8-tetraethenylcyclotetrasiloxane with aromatic hydrocarbons
rhoI	951.94	kg/m3	328.15	Effect of temperature and composition on the density, refractive index, and excess quantities of binary mixtures of 2,4,6,8-tetramethyl-2,4,6,8-tetraethenylcyclotetrasiloxane with aromatic hydrocarbons

rhoI	992.74	kg/m3	288.15	Effect of temperature and composition on the density, refractive index, and excess quantities of binary mixtures of 2,4,6,8-tetramethyl-2,4,6,8-tetraethenylcyclotetrasiloxane with aromatic hydrocarbons
rhoI	972.29	kg/m3	308.15	The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl) cyclotrisiloxane with various organosilicon compounds at different temperatures
rhoI	967.16	kg/m3	313.15	The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl) cyclotrisiloxane with various organosilicon compounds at different temperatures
rhoI	962.01	kg/m3	318.15	The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl) cyclotrisiloxane with various organosilicon compounds at different temperatures
rhoI	956.88	kg/m3	323.15	The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl) cyclotrisiloxane with various organosilicon compounds at different temperatures
rhoI	951.69	kg/m3	328.15	The mixing properties of 1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl) cyclotrisiloxane with various organosilicon compounds at different temperatures

rhoI	972.64	kg/m3	308.15	Volumetric and refractive properties of the mixtures of 1,1,3,3-tetramethyl-1,3-diphenyldisiloxane with various organosilicon compounds at T = (308.15 to 328.15) K
rhoI	967.49	kg/m3	313.15	Volumetric and refractive properties of the mixtures of 1,1,3,3-tetramethyl-1,3-diphenyldisiloxane with various organosilicon compounds at T = (308.15 to 328.15) K
rhoI	962.36	kg/m3	318.15	Volumetric and refractive properties of the mixtures of 1,1,3,3-tetramethyl-1,3-diphenyldisiloxane with various organosilicon compounds at T = (308.15 to 328.15) K
rhoI	957.20	kg/m3	323.15	Volumetric and refractive properties of the mixtures of 1,1,3,3-tetramethyl-1,3-diphenyldisiloxane with various organosilicon compounds at T = (308.15 to 328.15) K
rhoI	952.03	kg/m3	328.15	Volumetric and refractive properties of the mixtures of 1,1,3,3-tetramethyl-1,3-diphenyldisiloxane with various organosilicon compounds at T = (308.15 to 328.15) K

Sources

NIST Webbook: <http://webbook.nist.gov/cgi/cbook.cgi?ID=B6006234&Units=SI>

Crippen Method: <http://pubs.acs.org/doi/abs/10.1021/ci9903071>

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Effect of temperature and composition <https://www.doi.org/10.1016/j.jct.2012.08.010>

on the density, refractive index, and excess quantities of binary mixtures of 2,4,6,8-tetramethyl-2,4,6,8-tetraethenylcyclotetrasiloxane with aromatic hydrocarbons:

The mixing properties of
1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)
cyclotrisiloxane and mixtures of properties of
1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)tetrasiloxane
with chlorobenzene, nitrobenzene, chloroform,
tert-butylbenzene and nitrobenzene at
T = 308.15 and T = 328.15 K;
1,3,5-trimethyl-1,3,5-tris(3,3,3-trifluoropropyl)-
diphenyldisiloxane with various organosilicon compounds
at T = (308.15 to 328.15) K:

<https://www.doi.org/10.1016/j.jct.2014.09.010>
<https://www.doi.org/10.1016/j.jct.2018.09.021>
<https://www.doi.org/10.1021/acs.jced.5b00820>

Legend

log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
rfi:	Refractive Index
rho:	Liquid Density
rinpol:	Non-polar retention indices

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