

# 1,3-Diphenyltetramethyldisiloxane

**Other names:**

1,1,3,3-tetramethyl-1,3-dipenyldisiloxane  
1,3-Diphenyl-1,1,3,3-tetramethyldisiloxane  
Bis(phenyldimethylsilyl)oxide  
Diphenyltetramethyldisiloxane  
Disiloxane, 1,1,3,3-tetramethyl-1,3-diphenyl-  
Disiloxane, 1,3-diphenyl-1,1,3,3-tetramethyl-  
Sym-tetramethyl-diphenyl-disiloxane  
Tetramethyl-1,3-dipenyldisiloxane

**Inchi:**

InChI=1S/C16H22OSi2/c1-18(2,15-11-7-5-8-12-15)17-19(3,4)16-13-9-6-10-14-16/h5-14H

**InchiKey:**

YQJPWWLJDNCSCN-UHFFFAOYSA-N

**Formula:**

C<sub>16</sub>H<sub>22</sub>OSi<sub>2</sub>

**SMILES:**

C[Si](C)(O[Si](C)(C)c1ccccc1)c1ccccc1

**Mol. weight [g/mol]:**

286.52

**CAS:**

56-33-7

## Physical Properties

Property code	Value	Unit	Source
log10ws	-7.87		Crippen Method
logp	3.228		Crippen Method
sl	559.70	J/mol×K	NIST Webbook
tf	251.00	K	NIST Webbook
tf	250.00	K	NIST Webbook

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpl	508.10	J/mol×K	298.15	NIST Webbook
cpl	508.10	J/mol×K	298.15	NIST Webbook

rho	963.80	kg/m <sup>3</sup>	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
rho	955.69	kg/m <sup>3</sup>	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
rho	951.58	kg/m <sup>3</sup>	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
rho	963.94	kg/m <sup>3</sup>	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
rho	959.84	kg/m <sup>3</sup>	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
rho	955.74	kg/m <sup>3</sup>	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

rho1	951.65	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
rho1	967.90	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
rho1	959.80	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
rho1	959.75	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
rho1	955.65	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
rho1	951.57	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

rho1	967.99	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
rho1	963.87	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
rho1	959.76	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
rho1	955.68	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
rho1	963.92	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
rho1	968.05	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

# Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	429.50 ± 1.50	K	1.70	NIST Webbook

## Sources

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

Crippen Method: [https://www.cheméo.com/doc/models/crippen\\_log10ws](https://www.cheméo.com/doc/models/crippen_log10ws)

Volumetric and refractive properties of the mixtures of <https://www.doi.org/10.1021/acs.jced.5b00820>

NIST Webbook: <http://webbook.nist.gov/cgi/cbook.cgi?ID=C56337&Units=SI>  
NIST, Tetramethyl-1,3-diphenyldisiloxane with various organosilicon compounds at T = (308.15 to 328.15) K:

## Legend

<b>cpl:</b>	Liquid phase heat capacity
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>rho:</b>	Liquid Density
<b>sl:</b>	Liquid phase molar entropy at standard conditions
<b>tbrp:</b>	Boiling point at reduced pressure
<b>tf:</b>	Normal melting (fusion) point

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