

# Silicic acid (H<sub>4</sub>SiO<sub>4</sub>), tetrapropyl ester

<b>Other names:</b>	CT2090 Dynasil P Propyl orthosilicate Propyl silicate Propyl silicate ((PrO) <sub>4</sub> Si) Silane, tetrapropoxy- Silicon orthopropoxide Silicon tetrapropoxide Tetra-n-propoxysilane Tetrapropoxysilane Tetrapropyl orthosilicate Tetrapropyl silicate Tetrapropyloxysilane tetra-n-Propyl orthosilicate
<b>Inchi:</b>	InChI=1S/C12H28O4Si/c1-5-9-13-17(14-10-6-2,15-11-7-3)16-12-8-4/h5-12H2,1-4H3
<b>InchiKey:</b>	ZQZCOBSUOFHDEE-UHFFFAOYSA-N
<b>Formula:</b>	C <sub>12</sub> H <sub>28</sub> O <sub>4</sub> Si
<b>SMILES:</b>	CCCO[Si](OCCC)(OCCC)OCCC
<b>Mol. weight [g/mol]:</b>	264.43
<b>CAS:</b>	682-01-9

## Physical Properties

Property code	Value	Unit	Source
hvac	49.80 ± 0.80	kJ/mol	NIST Webbook
hvac	49.80 ± 0.40	kJ/mol	NIST Webbook
log10ws	-0.99		Crippen Method
logp	3.128		Crippen Method
pc	1370.00	kPa	Vapor-Liquid Critical Properties of Some Tetraalkoxysilanes
rinpol	1160.00		NIST Webbook
rinpol	1163.00		NIST Webbook
rinpol	1170.00		NIST Webbook
rinpol	1157.00		NIST Webbook
rinpol	1162.30		NIST Webbook
rinpol	1163.00		NIST Webbook

# Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpl	460.10	J/mol×K	298.15	NIST Webbook
hvapt	66.90	kJ/mol	435.00	NIST Webbook

# Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	367.00	K	0.70	NIST Webbook

## Sources

NIST Webbook:	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C682019&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C682019&amp;Units=SI</a>
Crippen Method:	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
Crippen Method:	<a href="https://www.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.com/doc/models/crippen_log10ws</a>
Vapor-Liquid Critical Properties of Some Tetraalkoxysilanes:	<a href="https://www.doi.org/10.1021/je800086s">https://www.doi.org/10.1021/je800086s</a>

## Legend

<b>cpl:</b>	Liquid phase heat capacity
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>hvapt:</b>	Enthalpy of vaporization at a given temperature
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>pc:</b>	Critical Pressure
<b>rinpol:</b>	Non-polar retention indices
<b>tbrp:</b>	Boiling point at reduced pressure

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