

Silane, tetraphenyl-

Other names:	Tetraphenylsilane Tetraphenylsilicon
Inchi:	InChI=1S/C24H20Si/c1-5-13-21(14-6-1)25(22-15-7-2-8-16-22,23-17-9-3-10-18-23)24-19
InchiKey:	JLAVCPKULITDHO-UHFFFAOYSA-N
Formula:	C ₂₄ H ₂₀ Si
SMILES:	c1ccc([Si](c2ccccc2)(c2ccccc2)c2ccccc2)cc1
Mol. weight [g/mol]:	336.50
CAS:	1048-08-4

Physical Properties

Property code	Value	Unit	Source
hsub	156.90 ± 1.70	kJ/mol	NIST Webbook
hsub	149.40 ± 1.70	kJ/mol	NIST Webbook
ie	8.50 ± 0.03	eV	NIST Webbook
ie	8.65 ± 0.15	eV	NIST Webbook
ie	8.96	eV	NIST Webbook
ie	8.60	eV	NIST Webbook
log10ws	-19.66		Crippen Method
logp	3.064		Crippen Method
tf	505.15 ± 2.00	K	NIST Webbook
tf	507.15 ± 2.00	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cps	395.80	J/mol×K	298.50	NIST Webbook
hsubt	51.20	kJ/mol	456.00	NIST Webbook
hsubt	51.00	kJ/mol	458.50	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	501.00	K	0.40	NIST Webbook

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1048084&Units=SI

Legend

cps:	Solid phase heat capacity
hsub:	Enthalpy of sublimation at standard conditions
hsubt:	Enthalpy of sublimation at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
tbrp:	Boiling point at reduced pressure
tf:	Normal melting (fusion) point

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