

Silane, trifluoromethyl-

Other names:	CH ₃ SiF ₃ Methyltrifluorosilane SiCH ₃ F ₃ Silicon carbide fluoride hydride (sicf3H3) Trifluoromethylsilane
Inchi:	InChI=1S/CH3F3Si/c1-5(2,3)4/h1H3
InchiKey:	BHOCBLDBJFCBQS-UHFFFAOYSA-N
Formula:	CH ₃ F ₃ Si
SMILES:	C[Si](F)(F)F
Mol. weight [g/mol]:	100.12
CAS:	373-74-0

Physical Properties

Property code	Value	Unit	Source
ie	12.48 ± 0.04	eV	NIST Webbook
ie	13.20	eV	NIST Webbook
ie	13.24 ± 0.02	eV	NIST Webbook
log10ws	0.98		Crippen Method
logp	1.464		Crippen Method
tb	243.00	K	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.63612e+01
Coeff. B	-2.85353e+03
Temperature range (K), min.	177.53
Temperature range (K), max.	258.30

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C373740&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

Legend

ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature

Latest version available from:

<https://www.chemeo.com/cid/50-965-5/Silane-trifluoromethyl.pdf>

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