Stannane, tetramethyl-

Other names:	(CH3)4Sn
	Tetramethylcin
	Tetramethylstannane
	Tetramethyltin
	Tin, tetramethyl-
Inchi:	InChI=1S/4CH3.Sn/h4*1H3;
InchiKey:	VXKWYPOMXBVZSJ-UHFFFAOYSA-N
Formula:	C4H12Sn
SMILES:	C[Sn](C)(C)C
Mol. weight [g/mol]:	178.85
CAS:	594-27-4

Physical Properties

Property code	Value	Unit	Source
affp	823.70	kJ/mol	NIST Webbook
basg	797.40	kJ/mol	NIST Webbook
chl	-3780.80 ± 1.50	kJ/mol	NIST Webbook
chl	-3817.50 ± 1.90	kJ/mol	NIST Webbook
chl	-3908.00 ± 13.00	kJ/mol	NIST Webbook
chl	-3780.00 ± 42.00	kJ/mol	NIST Webbook
chl	-3789.40 ± 4.20	kJ/mol	NIST Webbook
chl	-3816.60 ± 3.30	kJ/mol	NIST Webbook
hf	-55.00 ± 42.00	kJ/mol	NIST Webbook
hf	-45.30 ± 4.30	kJ/mol	NIST Webbook
hf	-18.10 ± 3.50	kJ/mol	NIST Webbook
hf	-17.70 ± 2.20	kJ/mol	NIST Webbook
hf	-53.90 ± 1.80	kJ/mol	NIST Webbook
hf	73.00 ± 13.00	kJ/mol	NIST Webbook
hf	-17.20 ± 2.20	kJ/mol	NIST Webbook
hfl	-85.90 ± 1.60	kJ/mol	NIST Webbook
hfl	-49.20 ± 2.00	kJ/mol	NIST Webbook
hfl	-77.30 ± 4.20	kJ/mol	NIST Webbook
hfl	41.00 ± 13.00	kJ/mol	NIST Webbook
hfl	-49.70 ± 2.00	kJ/mol	NIST Webbook
hfl	-87.00 ± 42.00	kJ/mol	NIST Webbook
hfl	-50.10 ± 3.40	kJ/mol	NIST Webbook
hvap	30.50	kJ/mol	NIST Webbook

hvap	32.00 ± 0.80	kJ/mol	NIST Webbook
hvap	31.10 ± 0.10	kJ/mol	NIST Webbook
hvap	33.10	kJ/mol	NIST Webbook
hvap	32.80 ± 0.10	kJ/mol	NIST Webbook
ie	8.76 ± 0.12	eV	NIST Webbook
ie	8.76 ± 0.02	eV	NIST Webbook
ie	8.76 ± 0.12	eV	NIST Webbook
ie	9.70	eV	NIST Webbook
ie	9.70	eV	NIST Webbook
ie	9.75	eV	NIST Webbook
ie	9.75	eV	NIST Webbook
ie	8.93 ± 0.04	eV	NIST Webbook
ie	8.89 ± 0.05	eV	NIST Webbook
ie	8.25 ± 0.15	eV	NIST Webbook
ie	8.90 ± 0.10	eV	NIST Webbook
pc	2981.30 ± 0.50	kPa	NIST Webbook
rinpol	630.00		NIST Webbook
rinpol	604.00		NIST Webbook
rinpol	602.00		NIST Webbook
rinpol	603.30		NIST Webbook
rinpol	604.50		NIST Webbook
rinpol	602.00		NIST Webbook
sl	310.80	J/mol×K	NIST Webbook
tb	351.00	K	NIST Webbook
tc	521.81 ± 0.02	K	NIST Webbook
tf	218.18 ± 0.05	K	NIST Webbook
tt	218.05 ± 0.02	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpl	197.90	J/mol×K	298.15	NIST Webbook
hfust	9.23	kJ/mol	218.05	NIST Webbook
hfust	9.44	kJ/mol	218.18	NIST Webbook
hfust	9.23	kJ/mol	218.20	NIST Webbook
hvapt	32.60 ± 0.20	kJ/mol	311.50	NIST Webbook
hvapt	33.40	kJ/mol	290.50	NIST Webbook
hvapt	31.60	kJ/mol	331.50	NIST Webbook
hvapt	31.60	kJ/mol	303.00	NIST Webbook
hvapt	31.30	kJ/mol	353.00	NIST Webbook
sfust	42.35	J/mol×K	218.05	NIST Webbook

sfust	43.26	J/mol×K	218.18	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.43838e+01
Coeff. B	-3.13250e+03
Coeff. C	-3.03770e+01
Temperature range (K), min.	252.60
Temperature range (K), max.	375.66

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C594274&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

Legend

affp: Proton affinity
basg: Gas basicity
chl: Standard liquid enthalpy of combustion
cpl: Liquid phase heat capacity
hf: Enthalpy of formation at standard conditions
hfl: Liquid phase enthalpy of formation at standard conditions
hfust: Enthalpy of fusion at a given temperature
hvap: Enthalpy of vaporization at standard conditions
hvapt: Enthalpy of vaporization at a given temperature
ie: Ionization energy
pc: Critical Pressure
pvap: Vapor pressure
rinpol: Non-polar retention indices
sfust: Entropy of fusion at a given temperature
sl: Liquid phase molar entropy at standard conditions

tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
tt:	Triple Point Temperature