

Silane, dichlorodimethyl-

Other names:	(CH ₃) ₂ SiCl ₂ Dichlorodimethylsilane Dichlorodimethylsilicon Dimethyl-dichlorsilan Dimethyldichlorosilane Dimethyldichlorsilane Inerton Aw-dmcs UN 1162 dimethylsilane dichloride
Inchi:	InChI=1S/C2H6Cl2Si/c1-5(2,3)4/h1-2H3
InchiKey:	LIKFHECYJZWXFJ-UHFFFAOYSA-N
Formula:	C ₂ H ₆ Cl ₂ Si
SMILES:	C[Si](C)(Cl)Cl
Mol. weight [g/mol]:	129.06
CAS:	75-78-5

Physical Properties

Property code	Value	Unit	Source
ie	10.70	eV	NIST Webbook
ie	10.99	eV	NIST Webbook
log10ws	0.40		Crippen Method
logp	2.166		Crippen Method
pc	3490.00 ± 11.14	kPa	NIST Webbook
rhoc	369.11 ± 3.87	kg/m ³	NIST Webbook
rinpol	606.00		NIST Webbook
rinpol	598.00		NIST Webbook
rinpol	596.10		NIST Webbook
rinpol	593.00		NIST Webbook
rinpol	606.00		NIST Webbook
sl	270.40	J/mol×K	NIST Webbook
tb	342.52 ± 0.50	K	NIST Webbook
tb	343.46	K	Isobaric vapor liquid equilibrium for methyltrichlorosilane dimethyldichlorosilane benzene system
tb	345.00 ± 4.00	K	NIST Webbook
tb	343.18 ± 0.50	K	NIST Webbook

tb	343.40	K	NIST Webbook
tc	520.40 ± 0.30	K	NIST Webbook
tt	198.99 ± 0.02	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpl	171.50	J/mol×K	298.15	NIST Webbook
hfust	8.83	kJ/mol	198.99	NIST Webbook
hfust	8.83	kJ/mol	199.00	NIST Webbook
hfust	8.83	kJ/mol	199.00	NIST Webbook
hvapt	31.50	kJ/mol	323.00	NIST Webbook
sfust	44.39	J/mol×K	198.99	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.43960e+01
Coeff. B	-2.97529e+03
Coeff. C	-3.82270e+01
Temperature range (K), min.	249.11
Temperature range (K), max.	520.35

Sources

Crippen Method:

https://www.chemeo.com/doc/models/crippen_log10ws

Isobaric vapor liquid equilibrium for methyltrichlorosilane
high pressure phase equilibria for chlorosilane + carbon dioxide
NIST Webbook:

<https://www.doi.org/10.1016/j.fluid.2006.01.014>

<https://www.doi.org/10.1016/j.fluid.2008.06.017>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C75785&Units=SI>

The Yaws Handbook of Vapor Pressure:
Crippen Method:

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>

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

Legend

cpl:	Liquid phase heat capacity
hfust:	Enthalpy of fusion at a given temperature
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
pc:	Critical Pressure
pvap:	Vapor pressure
rhoc:	Critical density
rinpola:	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
tt:	Triple Point Temperature

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