

Dichlorosilane

Other names:	silane, dichloro-
Inchi:	InChI=1S/Cl2H2Si/c1-3-2/h3H2
InchiKey:	MROCJMGDEKINLD-UHFFFAOYSA-N
Formula:	Cl2H2Si
SMILES:	Cl[SiH2]Cl
Mol. weight [g/mol]:	101.01
CAS:	4109-96-0

Physical Properties

Property code	Value	Unit	Source
ie	11.70	eV	NIST Webbook
ie	11.70	eV	NIST Webbook
ie	11.64 ± 0.02	eV	NIST Webbook
log10ws	1.68		Crippen Method
logp	0.463		Crippen Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hvapt	22.20 ± 0.70	kJ/mol	320.00	NIST Webbook
pvap	982.40	kPa	362.94	Phase equilibrium data for potentially hazardous binary mixtures involving dichlorosilane, trichlorosilane and silicon-tetrachloride
pvap	384.10	kPa	323.35	Phase equilibrium data for potentially hazardous binary mixtures involving dichlorosilane, trichlorosilane and silicon-tetrachloride

pvap	496.60	kPa	333.19	Phase equilibrium data for potentially hazardous binary mixtures involving dichlorosilane, trichlorosilane and silicon-tetrachloride
pvap	631.70	kPa	343.04	Phase equilibrium data for potentially hazardous binary mixtures involving dichlorosilane, trichlorosilane and silicon-tetrachloride
pvap	793.40	kPa	352.98	Phase equilibrium data for potentially hazardous binary mixtures involving dichlorosilane, trichlorosilane and silicon-tetrachloride
pvap	290.60	kPa	313.36	Phase equilibrium data for potentially hazardous binary mixtures involving dichlorosilane, trichlorosilane and silicon-tetrachloride
pvap	216.50	kPa	300.00	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	380.40	kPa	320.00	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	492.20	kPa	330.02	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K

pvap	214.50	kPa	299.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	377.60	kPa	319.98	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	625.60	kPa	339.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	789.00	kPa	349.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	214.20	kPa	300.00	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	377.30	kPa	320.00	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	625.30	kPa	339.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	981.90	kPa	359.98	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	485.80	kPa	329.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K

pvap	784.70	kPa	349.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	978.00	kPa	359.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	1205.00	kPa	369.98	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	785.00	kPa	350.00	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	1205.00	kPa	369.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	1469.00	kPa	379.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	212.10	kPa	300.00	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	284.30	kPa	309.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K

pvap	786.40	kPa	349.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	982.20	kPa	359.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	1209.00	kPa	369.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	1479.00	kPa	379.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	1779.00	kPa	389.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	214.40	kPa	299.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	377.90	kPa	319.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	628.60	kPa	340.00	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	985.90	kPa	359.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K

pvap	1477.00	kPa	379.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	1784.00	kPa	389.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	213.33	kPa	299.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	626.40	kPa	339.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	1475.90	kPa	379.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	1780.50	kPa	389.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	2099.00	kPa	399.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	2534.00	kPa	410.00	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K

pvap	216.53	kPa	299.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	381.43	kPa	320.00	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	631.60	kPa	339.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	990.30	kPa	359.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	1484.00	kPa	379.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	2138.00	kPa	399.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	2559.00	kPa	409.98	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K
pvap	3016.00	kPa	419.99	Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	281.30	K	101.00	NIST Webbook

Sources

NIST Webbook: <http://webbook.nist.gov/cgi/cbook.cgi?ID=C4109960&Units=SI>

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

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

Phase equilibrium data for potentially hazardous binary mixtures involving <https://www.doi.org/10.1016/j.jct.2015.07.047>

Vapor Pressure of Dichlorosilane, Trichlorosilane, and Tetrachlorosilane from 300 K to 420 K: <https://www.doi.org/10.1021/acs.jced.6b00142>

Legend

hvapt: Enthalpy of vaporization at a given temperature

ie: Ionization energy

log10ws: Log10 of Water solubility in mol/l

logp: Octanol/Water partition coefficient

pvap: Vapor pressure

tbrp: Boiling point at reduced pressure

Latest version available from:

<https://www.chemeo.com/cid/38-237-7/Dichlorosilane.pdf>

Generated by Cheméo on 2024-04-27 18:39:19.12413044 +0000 UTC m=+16532408.044707751.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.