

Ethyltrichlorosilane

Other names:	C2H5SiCl3 Trichloroethylsilane Silane, trichloroethyl- Silane, ethyltrichloro- Ethyl silicon trichloride Silicane, trichloroethyl- Trichloroethylsilicane UN 1196 CE6350 Trichloroethylsilicon
Inchi:	InChI=1S/C2H5Cl3Si/c1-2-6(3,4)5/h2H2,1H3
InchiKey:	ZOYFEXPFPVDYIS-UHFFFAOYSA-N
Formula:	C2H5Cl3Si
SMILES:	CC[Si](Cl)(Cl)Cl
Mol. weight [g/mol]:	163.51
CAS:	115-21-9

Physical Properties

Property code	Value	Unit	Source
ie	10.74 ± 0.04	eV	NIST Webbook
log10ws	-0.33		Crippen Method
logp	2.662		Crippen Method
pc	3330.00 ± 11.14	kPa	NIST Webbook
rhoc	405.49 ± 3.27	kg/m3	NIST Webbook
rinpol	723.00		NIST Webbook
rinpol	702.00		NIST Webbook
rinpol	713.10		NIST Webbook
rinpol	703.00		NIST Webbook
sl	307.70	J/mol×K	NIST Webbook
tc	560.00 ± 0.50	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
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cpl	192.60	J/mol×K	298.16	NIST Webbook
hfust	6.96	kJ/mol	165.30	NIST Webbook
hfust	6.96	kJ/mol	165.30	NIST Webbook
hfust	6.96	kJ/mol	165.26	NIST Webbook
hvapt	35.10	kJ/mol	333.00	NIST Webbook
hvapt	35.90	kJ/mol	334.50	NIST Webbook
sfust	42.09	J/mol×K	165.26	NIST Webbook

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C115219&Units=SI

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
rhoc:	Critical density
rinpol:	Non-polar retention indices
sfust:	Entropy of fusion at a given temperature
sl:	Liquid phase molar entropy at standard conditions
tc:	Critical Temperature

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