

Diethoxydimethylsilane

Other names:	CD5600 Dimethyl-diethoxysilan EXP-49 Silane, dimethyl, diethoxy UN 2380 dimethyldiethoxysilane silane, diethoxydimethyl-
Inchi:	InChI=1S/C6H16O2Si/c1-5-7-9(3,4)8-6-2/h5-6H2,1-4H3
InchiKey:	YYLGKUPAFFKGRQ-UHFFFAOYSA-N
Formula:	C6H16O2Si
SMILES:	CCO[Si](C)(C)OCC
Mol. weight [g/mol]:	148.28
CAS:	78-62-6

Physical Properties

Property code	Value	Unit	Source
hvap	43.10 ± 0.70	kJ/mol	NIST Webbook
hvap	43.10 ± 0.30	kJ/mol	NIST Webbook
ie	9.96	eV	Cheméo Relay (1.0)
logp	1.761		Crippen Method
pc	2335.46	kPa	Cheméo Relay (1.0, beta)
rinpol	678.00		NIST Webbook
rinpol	678.00		NIST Webbook
rinpol	678.00		NIST Webbook
tb	387.00	K	NIST Webbook
tf	196.24	K	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hvapt	43.30	kJ/mol	320.00	NIST Webbook

rhoI	840.11	kg/m3	293.15	Excess molar volume along with refractive index for binary systems of dimethoxymethylphenylsilane with dimethyldimethoxysilane, dimethyldiethoxysilane, methylvinyl diethoxysilane and ethenyltrimethoxysilane
rhoI	835.43	kg/m3	298.15	Excess molar volume along with refractive index for binary systems of dimethoxymethylphenylsilane with dimethyldimethoxysilane, dimethyldiethoxysilane, methylvinyl diethoxysilane and ethenyltrimethoxysilane
rhoI	830.05	kg/m3	303.15	Excess molar volume along with refractive index for binary systems of dimethoxymethylphenylsilane with dimethyldimethoxysilane, dimethyldiethoxysilane, methylvinyl diethoxysilane and ethenyltrimethoxysilane
rhoI	824.66	kg/m3	308.15	Excess molar volume along with refractive index for binary systems of dimethoxymethylphenylsilane with dimethyldimethoxysilane, dimethyldiethoxysilane, methylvinyl diethoxysilane and ethenyltrimethoxysilane
rhoI	819.23	kg/m3	313.15	Excess molar volume along with refractive index for binary systems of dimethoxymethylphenylsilane with dimethyldimethoxysilane, dimethyldiethoxysilane, methylvinyl diethoxysilane and ethenyltrimethoxysilane

rhoI	813.79	kg/m3	318.15	Excess molar volume along with refractive index for binary systems of dimethoxymethylphenylsilane with dimethyldimethoxysilane, dimethyldiethoxysilane, methylvinyl diethoxysilane and ethenyltrimethoxysilane
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Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.41699e+01
Coeff. B	-3.07415e+03
Coeff. C	-6.53020e+01
Temperature range (K), min.	286.75
Temperature range (K), max.	412.33

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):	
Cheméo Relay (1.0, beta):	
Excess molar volume along with refractive index for binary systems of dimethoxymethylphenylsilane with dimethyldimethoxysilane, dimethyldiethoxysilane, methylvinyl diethoxysilane and ethenyltrimethoxysilane:	https://www.doi.org/10.1016/j.jct.2016.10.033
The Yaws Handbook of Vapor Pressure	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
NIST Webbook	http://webbook.nist.gov/cgi/cbook.cgi?ID=C78626&Units=SI
Crippen Method	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy

logp:	Octanol/Water partition coefficient
pc:	Critical Pressure
pvap:	Vapor pressure
rho:	Liquid Density
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tf:	Normal melting (fusion) point

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