

BUTYLTRICHLOROSILANE

Other names:	Silane, butyltrichloro- Trichlorobutylsilane UN 1747
Inchi:	InChI=1S/C4H9Cl3Si/c1-2-3-4-8(5,6)7/h2-4H2,1H3
InchiKey:	FQEKAQSVPLXON-UHFFFAOYSA-N
Formula:	C4H9Cl3Si
SMILES:	CCCC[Si](Cl)(Cl)Cl
Mol. weight [g/mol]:	191.56
CAS:	7521-80-4

Physical Properties

Property code	Value	Unit	Source
af	0.2812		Cheméo Relay (1.0)
gf	-4.46	kJ/mol	Cheméo Relay (1.0, beta)
hf	-290.08	kJ/mol	Cheméo Relay (1.0)
hvap	40.60	kJ/mol	Cheméo Relay (1.0)
ie	10.67	eV	Cheméo Relay (1.0)
log10ws	-3.64		Cheméo Relay (1.0)
logp	3.442		Crippen Method
pc	2513.93	kPa	Cheméo Relay (1.0, beta)
rinpol	903.00		NIST Webbook
rinpol	883.00		NIST Webbook
tb	415.50 ± 0.50	K	NIST Webbook
tc	594.86	K	Cheméo Relay (1.0)
tf	169.23	K	Cheméo Relay (1.0)
vc	0.456	m3/kmol	Cheméo Relay (1.0)

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.41019e+01
Coeff. B	-3.44521e+03

Coeff. C	-5.83690e+01
Temperature range (K), min.	307.76
Temperature range (K), max.	450.30

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):	
Cheméo Relay (1.0, beta):	
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=C7521804&Units=SI

Legend

af:	Acentric Factor
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
pc:	Critical Pressure
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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