

TITANIUM TETRABUTOXIDE

Other names:	1-Butanol, titanium(4+) salt
	1-butanol, titanium(4+) salt (4:1)
	Butyl alcohol, titanium(4+) salt
	Butyl orthotitanate
	Butyl titanate
	Butyl titanate(IV)
	Butyl titanate(IV) ((BuO)4Ti)
	Tetrabutoxytitanium
	Tetrabutyl orthotitanate
	Titanic acid, tetrabutyl ester
	Titanium butoxide (Ti(Obu)4)
	Titanium n-butoxide
	Titanium tetrabutylate
	Titanium tetrakis(butoxide)
	Titanium(4+) butoxide
	Titanium(IV) butoxide
	Titanium(IV) n-Butoxide
	Titanium, tetrabutoxy-
	Tyzor BP
	Tyzor TBT
	tetra-n-Butyl orthotitanate
	titanium tetrabutanolate
	titanium(4+) tetrabutan-1-olate
	titanium(IV) butan-1-olate
Inchi:	InChI=1S/4C4H9O.Ti/c4*1-2-3-4-5;/h4*2-4H2,1H3;/q4*-1;+4
InchiKey:	YHWCPXVTRSHPNY-UHFFFAOYSA-N
Formula:	C16H36O4Ti
SMILES:	CCCC[O][Ti]([O]CCCC)([O]CCCC)[O]CCCC
Mol. weight [g/mol]:	340.33

Physical Properties

Property code	Value	Unit	Source
af	0.8347		Cheméo Relay (1.0)
chl	-10742.00 ± 16.00	kJ/mol	NIST Webbook
gf	-315.66	kJ/mol	Cheméo Relay (1.0, beta)
hf	-1578.00 ± 9.00	kJ/mol	NIST Webbook

hf	-1579.70 ± 9.70	kJ/mol	NIST Webbook
hf	-1551.00 ± 19.00	kJ/mol	NIST Webbook
hf	-1576.30 ± 9.20	kJ/mol	NIST Webbook
hfl	-1668.30 ± 3.70	kJ/mol	NIST Webbook
hfl	-1643.00 ± 17.00	kJ/mol	NIST Webbook
hfl	-1671.70 ± 4.90	kJ/mol	NIST Webbook
hfl	-1670.00 ± 3.10	kJ/mol	NIST Webbook
hvap	92.00 ± 8.40	kJ/mol	NIST Webbook
ie	9.52	eV	Cheméo Relay (1.0)
log10ws	-4.37		Cheméo Relay (1.0)
pc	1020.00	kPa	Critical Temperatures and Pressures of Some Tetraalkoxytitaniums
tb	548.10	K	Cheméo Relay (1.0)
tc	699.87	K	Cheméo Relay (1.0)
tf	183.94	K	Cheméo Relay (1.0)
vc	1.078	m ³ /kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpl	711.00	J/mol×K	353.00	NIST Webbook
hvapt	47.60 ± 0.70	kJ/mol	370.50	NIST Webbook
hvapt	89.70	kJ/mol	513.00	NIST Webbook
hvapt	85.00 ± 3.10	kJ/mol	468.00	NIST Webbook

Sources

NIST Webbook: <http://webbook.nist.gov/cgi/cbook.cgi?ID=C5593704&Units=SI>

Cheméo Relay (1.0):

Cheméo Relay (1.0, beta):

Critical Temperatures and Pressures of Some Tetraalkoxytitaniums: <https://www.doi.org/10.1021/je900302n>

Legend

af: Acentric Factor

chl:	Standard liquid enthalpy of combustion
cpl:	Liquid phase heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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