Diazene, bis(1,1-dimethylethyl)-

Other names:	Azoethane, 1,1,1',1'-tetramethyl-
	Bis(tert-butyl)diimine
	Di-tert-butyldiazene
	2,2'-Azoisobutane
	(tert-C4H9N)2
	Azobis(t-butane)
	1,2-Bis(1,1-dimethylethyl)diazene
	2,2'-Azo-2,2'-dimethylpropane
	2,2'-Azobis(2-methylpropane)
	VR-160
	2,2'-Azobis-tert-butane
	Diazene, bis(1,1-dimethylethyl)-, trans-
Inchi:	InChI=1S/C8H18N2/c1-7(2,3)9-10-8(4,5)6/h1-6H3
InchiKey:	GKCPCPKXFGQXGS-UHFFFAOYSA-N
Formula:	C8H18N2
SMILES:	CC(C)(C)N=NC(C)(C)C
Mol. weight [g/mol]:	142.24
CAS:	927-83-3

Physical Properties

Property code	Value	Unit	Source
chl	-5645.10 ± 2.50	kJ/mol	NIST Webbook
hf	-35.60 ± 3.60	kJ/mol	NIST Webbook
hf	-36.40 ± 2.80	kJ/mol	NIST Webbook
hfl	-74.70 ± 3.60	kJ/mol	NIST Webbook
hfl	-75.50 ± 2.70	kJ/mol	NIST Webbook
hvap	39.10 ± 0.30	kJ/mol	NIST Webbook
hvap	39.10	kJ/mol	NIST Webbook
hvap	39.10 ± 0.30	kJ/mol	NIST Webbook
hvap	39.10	kJ/mol	NIST Webbook
hvap	39.10 ± 0.30	kJ/mol	NIST Webbook
ie	8.20 ± 0.20	eV	NIST Webbook
ie	8.20	eV	NIST Webbook
log10ws	-2.65		Crippen Method
logp	3.036		Crippen Method
mcvol	139.240	ml/mol	McGowan Method
pc	2047.46	kPa	Joback Method

tb	382.50 ± 0.50	K	NIST Webbook
tc	744.32	K	Joback Method
tf	258.60 ± 1.00	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hfust	10.28	kJ/mol	258.60	NIST Webbook
hvapt	39.60	kJ/mol	299.50	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	321.50 ± 1.50	K	11.00	NIST Webbook

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method: https://en.wikipedia.org/wiki/Joback_method
McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C927833&Units=SI

Legend

chl: Standard liquid enthalpy of combustion
hf: Enthalpy of formation at standard conditions
hfl: Liquid phase enthalpy of formation at standard conditions
hfust: Enthalpy of fusion at a given temperature
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
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point