TEGDN

Other names:	2,2'-[ethane-1,2-diylbis(oxy)]bisethyl dinitrate
	Ethanol, 2,2'-[1,2-ethanediylbis(oxy)]bis-, dinitrate
Inchi:	InChI=1S/C6H12N2O8/c9-7(10)15-5-3-13-1-2-14-4-6-16-8(11)12/h1-6H2
InchiKey:	AGCQZYRSTIRJFM-UHFFFAOYSA-N
Formula:	C6H12N2O8
SMILES:	O=[N+]([O-])OCCOCCOCCO[N+](=O)[O-]
Mol. weight [g/mol]:	240.17
CAS:	111-22-8

Physical Properties

Property code	Value	Unit	Source
gf	-349.26	kJ/mol	Joback Method
hf	-717.57	kJ/mol	Joback Method
hfus	38.77	kJ/mol	Joback Method
hvap	71.77	kJ/mol	Joback Method
log10ws	-0.83		Crippen Method
logp	-0.564		Crippen Method
mcvol	153.720	ml/mol	McGowan Method
pc	2960.12	kPa	Joback Method
rinpol	1595.00		NIST Webbook
tb	730.04	K	Joback Method
tc	947.12	K	Joback Method
tf	533.52	K	Joback Method
vc	0.608	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	435.17	J/mol×K	730.04	Joback Method
cpg	445.88	J/mol×K	766.22	Joback Method
cpg	455.84	J/mol×K	802.40	Joback Method
cpg	465.00	J/mol×K	838.58	Joback Method
cpg	473.34	J/mol×K	874.76	Joback Method
cpg	480.82	J/mol×K	910.94	Joback Method

cpg	487.40	J/mol×K	947.12	Joback Method

Sources

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=C111228&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume