Terephthalamide, n,n'-bis(2-hydroxyethyl)-

Other names: N,N'-bis(2-hydroxyethyl)terephthaldiamide
Inchi: InChI=1S/C12H16N2O4/c15-7-5-13-11(17)9-1-2-10(4-3-9)12(18)14-6-8-16/h1-4,15-16H,
InchiKey: VNXJRBGZIXAZRZ-UHFFFAOYSA-N
Formula: C12H16N2O4
SMILES: O=C(NCCO)c1ccc(C(=O)NCCO)cc1
Mol. weight [g/mol]: 252.27
CAS: 18928-62-6

Physical Properties

Property code	Value	Unit	Source
gf	-199.76	kJ/mol	Joback Method
hf	-488.63	kJ/mol	Joback Method
hfus	42.06	kJ/mol	Joback Method
hvap	104.97	kJ/mol	Joback Method
log10ws	-1.53		Crippen Method
logp	-0.869		Crippen Method
mcvol	191.020	ml/mol	McGowan Method
pc	3388.08	kPa	Joback Method
tb	898.06	K	Joback Method
tc	1104.73	K	Joback Method
tf	590.76	K	Joback Method
vc	0.720	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	582.21	J/mol×K	898.06	Joback Method
cpg	590.90	J/mol×K	932.50	Joback Method
cpg	598.91	J/mol×K	966.95	Joback Method
cpg	606.30	J/mol×K	1001.39	Joback Method
cpg	613.10	J/mol×K	1035.84	Joback Method
cpg	619.34	J/mol×K	1070.28	Joback Method
cpg	625.07	J/mol×K	1104.73	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C18928626&Units=SI
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

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume