1-Diethylamino-2-butyne

Inchi: InChI=1S/C8H15N/c1-4-7-8-9(5-2)6-3/h5-6,8H2,1-3H3
InchiKey: GZDWCJZYZWTVCL-UHFFFAOYSA-N
Formula: C8H15N
SMILES: CC#CCN(CC)CC
Mol. weight [g/mol]: 125.21
CAS: 6323-82-6

Physical Properties

Property code	Value	Unit	Source
gf	330.06	kJ/mol	Joback Method
hf	131.38	kJ/mol	Joback Method
hfus	22.62	kJ/mol	Joback Method
hvap	37.60	kJ/mol	Joback Method
log10ws	-1.54		Crippen Method
logp	1.352		Crippen Method
mcvol	124.960	ml/mol	McGowan Method
pc	2992.59	kPa	Joback Method
tb	403.88	K	Joback Method
tc	589.32	K	Joback Method
tf	318.49	K	Joback Method
vc	0.464	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	236.70	J/mol×K	403.88	Joback Method
cpg	249.95	J/mol×K	434.79	Joback Method
cpg	262.63	J/mol×K	465.69	Joback Method
cpg	274.75	J/mol×K	496.60	Joback Method
cpg	286.33	J/mol×K	527.51	Joback Method
cpg	297.38	J/mol×K	558.42	Joback Method
cpg	307.94	J/mol×K	589.32	Joback Method

Sources

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=C6323826&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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