Aniline, n,n-dimethyl-p-(3,4-dimethylphenylsulfonamido)-

Inchi: InChI=1S/C16H20N2O2S/c1-12-5-10-16(11-13(12)2)21(19,20)17-14-6-8-15(9-7-14)18(3)

InchiKey: IUDCJKFTUQYUBX-UHFFFAOYSA-N

Formula: C16H20N2O2S

SMILES: Cc1ccc(S(=O)(=O)Nc2ccc(N(C)C)cc2)cc1C

Mol. weight [g/mol]: 304.41

CAS: 19770-73-1

Physical Properties

Property code	Value	Unit	Source
gf	11.40	kJ/mol	Joback Method
hf	-267.27	kJ/mol	Joback Method
hfus	43.61	kJ/mol	Joback Method
hvap	84.86	kJ/mol	Joback Method
log10ws	-3.84		Crippen Method
logp	3.170		Crippen Method
mcvol	236.830	ml/mol	McGowan Method
pc	2574.11	kPa	Joback Method
tb	744.17	K	Joback Method
tc	963.23	K	Joback Method
tf	484.17	K	Joback Method
vc	0.894	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	655.26	J/mol×K	744.17	Joback Method
cpg	671.34	J/mol×K	780.68	Joback Method
cpg	686.16	J/mol×K	817.19	Joback Method
cpg	699.76	J/mol×K	853.70	Joback Method
cpg	712.17	J/mol×K	890.21	Joback Method
cpg	723.43	J/mol×K	926.72	Joback Method
cpg	733.60	J/mol×K	963.23	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C19770731&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

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