Tritylamine

Other names: Benzenemethanamine, «alpha»,«alpha»-diphenyl-
Methylamine, 1,1,1-triphenyl-
Triphenylmethylamine
Inchi: InChI=1S/C19H17N/c20-19(16-10-4-1-5-11-16,17-12-6-2-7-13-17)18-14-8-3-9-15-18/h1-
InchiKey: BZVJOYBTLHNRDW-UHFFFAOYSA-N
Formula: C19H17N
SMILES: NC(c1ccccc1)(c1ccccc1)c1ccccc1
Mol. weight [g/mol]: 259.35
CAS: 5824-40-8

Physical Properties

Property code	Value	Unit	Source
gf	515.62	kJ/mol	Joback Method
hf	299.14	kJ/mol	Joback Method
hfus	24.87	kJ/mol	Joback Method
hvap	74.06	kJ/mol	Joback Method
log10ws	-4.89		Crippen Method
logp	3.937		Crippen Method
mcvol	217.270	ml/mol	McGowan Method
pc	2568.89	kPa	Joback Method
tb	783.46	K	Joback Method
tc	1065.59	K	Joback Method
tf	468.83	K	Joback Method
vc	0.793	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	615.28	J/mol×K	783.46	Joback Method
cpg	632.36	J/mol×K	830.48	Joback Method
cpg	647.72	J/mol×K	877.50	Joback Method
cpg	661.61	J/mol×K	924.52	Joback Method
cpg	674.27	J/mol×K	971.54	Joback Method
cpg	685.91	J/mol×K	1018.56	Joback Method

cpg	696.79	J/mol×K	1065.59	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	496.20	K	1.90	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C5824408&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
tbrp: Boiling point at reduced pressure
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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