N-t-Butylmethacrylamide

Other names:	N-tert-Butylmethacrylamide
	2-Propenamide, N-(1,1-dimethylethyl)-2-methyl-
	N-tert-butylacrylamide
Inchi:	InChI=1S/C8H15NO/c1-6(2)7(10)9-8(3,4)5/h1H2,2-5H3,(H,9,10)
InchiKey:	QQZXAODFGRZKJT-UHFFFAOYSA-N
Formula:	C8H15NO
SMILES:	C=C(C)C(=O)NC(C)(C)C
Mol. weight [g/mol]:	141.21
CAS:	6554-73-0

Physical Properties

Property code	Value	Unit	Source
gf	59.08	kJ/mol	Joback Method
hf	-160.67	kJ/mol	Joback Method
hfus	13.17	kJ/mol	Joback Method
hvap	44.70	kJ/mol	Joback Method
log10ws	-2.10		Crippen Method
logp	1.477		Crippen Method
mcvol	130.830	ml/mol	McGowan Method
pc	2940.89	kPa	Joback Method
tb	479.81	K	Joback Method
tc	677.09	K	Joback Method
tf	269.21	K	Joback Method
vc	0.495	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	287.53	J/mol×K	479.81	Joback Method
cpg	301.16	J/mol×K	512.69	Joback Method
cpg	314.01	J/mol×K	545.57	Joback Method
cpg	326.10	J/mol×K	578.45	Joback Method
cpg	337.47	J/mol×K	611.33	Joback Method
cpg	348.16	J/mol×K	644.21	Joback Method

cpg	358.21	J/mol×K	677.09	Joback Method
hvapt	49.60	kJ/mol	403.50	NIST Webbook

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	367.00 ± 1.00	K	2.70	NIST Webbook

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=C6554730&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
hvapt: Enthalpy of vaporization at a given temperature
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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