N-Benzylformamide

Other names: Benzyl formamide
Formamide, N-(phenylmethyl)-
N-benzyl-formamide
Inchi: InChI=1S/C8H9NO/c10-7-9-6-8-4-2-1-3-5-8/h1-5,7H,6H2,(H,9,10)
InchiKey: IIBOGKHTXBPGEI-UHFFFAOYSA-N
Formula: C8H9NO
SMILES: O=CNCc1ccccc1
Mol. weight [g/mol]: 135.16
CAS: 6343-54-0

Physical Properties

Property code	Value	Unit	Source
gf	118.76	kJ/mol	Joback Method
hf	-4.03	kJ/mol	Joback Method
hfus	17.90	kJ/mol	Joback Method
hvap	48.83	kJ/mol	Joback Method
log10ws	-1.73		Crippen Method
logp	0.933		Crippen Method
mcvol	111.370	ml/mol	McGowan Method
pc	4067.32	kPa	Joback Method
rinpol	1402.00		NIST Webbook
tb	507.95	K	Joback Method
tc	725.03	K	Joback Method
tf	301.00	K	Joback Method
vc	0.427	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	236.07	J/mol×K	507.95	Joback Method
cpg	247.80	J/mol×K	544.13	Joback Method
cpg	258.76	J/mol×K	580.31	Joback Method
cpg	268.99	J/mol×K	616.49	Joback Method
cpg	278.53	J/mol×K	652.67	Joback Method

cpg	287.40	J/mol×K	688.85	Joback Method
cpg	295.64	J/mol×K	725.03	Joback Method
pvap	2.40e-03	kPa	340.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	1.63e-03	kPa	335.20	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	1.84e-03	kPa	337.30	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	1.35e-03	kPa	333.20	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	3.02e-03	kPa	343.30	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	3.90e-03	kPa	346.30	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	4.87e-03	kPa	349.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	6.28e-03	kPa	352.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	7.72e-03	kPa	355.20	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	9.61e-03	kPa	358.30	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.01	kPa	361.30	Vapour pressures and enthalpies of vaporisation of alkyl formamides

pvap	0.01	kPa	364.50	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.02	kPa	367.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.02	kPa	370.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides

Sources

Vapour pressures and enthalpies of vaporisation of alkyl formamides:	https://www.doi.org/10.1016/j.fluid.2019.04.036
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=C6343540&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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume