N,N-Dipropylformamide

Other names:	Formamide, N,N-di-n-propyl-
	Formamide, N,N-dipropyl-
	N,N-di-n-Propylformamide
	N-N-di-n-propylformamide
Inchi:	InChI=1S/C7H15NO/c1-3-5-8(7-9)6-4-2/h7H,3-6H2,1-2H3
InchiKey:	XFTIKWYXFSNCQF-UHFFFAOYSA-N
Formula:	C7H15NO
SMILES:	CCCN(C=O)CCC
Mol. weight [g/mol]:	129.20
CAS:	6282-00-4

Physical Properties

Property code	Value	Unit	Source
gf	19.32	kJ/mol	Joback Method
hf	-205.86	kJ/mol	Joback Method
hfus	19.20	kJ/mol	Joback Method
hvap	39.94	kJ/mol	Joback Method
log10ws	-1.10		Crippen Method
logp	1.265		Crippen Method
mcvol	121.040	ml/mol	McGowan Method
pc	3025.61	kPa	Joback Method
tb	420.66	K	Joback Method
tc	590.90	K	Joback Method
tf	243.12	K	Joback Method
vc	0.463	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	311.23	J/mol×K	590.90	Joback Method
cpg	301.56	J/mol×K	562.53	Joback Method
cpg	291.44	J/mol×K	534.15	Joback Method
cpg	280.85	J/mol×K	505.78	Joback Method
cpg	269.77	J/mol×K	477.41	Joback Method

cpg	258.20	J/mol×K	449.03	Joback Method
cpg	246.12	J/mol×K	420.66	Joback Method
pvap	0.06	kPa	308.20	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.02	kPa	294.80	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.03	kPa	298.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.04	kPa	301.20	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.03	kPa	299.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.02	kPa	295.80	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.05	kPa	305.10	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.05	kPa	306.10	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.06	kPa	307.20	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.03	kPa	296.50	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.04	kPa	302.90	Vapour pressures and enthalpies of vaporisation of alkyl formamides

pvap	0.08	kPa	310.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.08	kPa	311.30	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.09	kPa	313.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.11	kPa	315.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.11	kPa	316.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.15	kPa	319.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.13	kPa	318.50	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.02	kPa	292.20	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.02	kPa	290.20	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	0.01	kPa	288.20	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	8.14e-03	kPa	283.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	7.41e-03	kPa	282.40	Vapour pressures and enthalpies of vaporisation of alkyl formamides

pvap	9.49e-03	kPa	285.10	Vapour pressures and enthalpies of vaporisation of alkyl formamides
pvap	5.16e-03	kPa	278.50	Vapour pressures and enthalpies of vaporisation of alkyl formamides

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	373.50 ± 0.50	K	2.40	NIST Webbook

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
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=C6282004&Units=SI

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
tb:	Normal Boiling Point Temperature

tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume