

Propanamide, N,N-dimethyl-

Other names:	Dimethylamide of propionic acid N,N-dimethylpropanamide N,N-dimethylpropionamide Propionamide, N,N-dimethyl- Propionic acid dimethylamide
Inchi:	InChI=1S/C5H11NO/c1-4-5(7)6(2)3/h4H2,1-3H3
InchiKey:	MBHINSULENHCMF-UHFFFAOYSA-N
Formula:	C5H11NO
SMILES:	CCC(=O)N(C)C
Mol. weight [g/mol]:	101.15
CAS:	758-96-3

Physical Properties

Property code	Value	Unit	Source
basg	896.00 ± 8.00	kJ/mol	NIST Webbook
chl	-3236.60 ± 0.92	kJ/mol	NIST Webbook
gf	-26.92	kJ/mol	Joback Method
hf	-250.20	kJ/mol	NIST Webbook
hfus	13.33	kJ/mol	Joback Method
hvap	52.89	kJ/mol	NIST Webbook
log10ws	-0.26		Crippen Method
logp	0.485		Crippen Method
mcvol	92.860	ml/mol	McGowan Method
pc	3731.66	kPa	Joback Method
rinpol	854.00		NIST Webbook
rinpol	878.00		NIST Webbook
rinpol	854.00		NIST Webbook
rinpol	878.00		NIST Webbook
ripol	1454.00		NIST Webbook
ripol	1454.00		NIST Webbook
tb	447.70	K	NIST Webbook
tc	556.89	K	Joback Method
tf	228.51	K	Joback Method
vc	0.340	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	168.27	J/mol×K	380.11	Joback Method
cpg	178.30	J/mol×K	409.57	Joback Method
cpg	187.90	J/mol×K	439.04	Joback Method
cpg	197.08	J/mol×K	468.50	Joback Method
cpg	205.86	J/mol×K	497.96	Joback Method
cpg	214.24	J/mol×K	527.43	Joback Method
cpg	222.23	J/mol×K	556.89	Joback Method
cpl	209.00	J/mol×K	298.15	NIST Webbook
hvapt	53.50	kJ/mol	375.00	NIST Webbook
rhoI	933.60	kg/m3	283.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids
rhoI	938.02	kg/m3	278.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids
rhoI	942.45	kg/m3	273.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids
rhoI	929.18	kg/m3	288.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids
rhoI	924.75	kg/m3	293.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids
rhoI	920.32	kg/m3	298.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids

rho1	915.93	kg/m3	303.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids
rho1	907.04	kg/m3	313.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids
rho1	898.13	kg/m3	323.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids
rho1	889.17	kg/m3	333.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids
rho1	880.17	kg/m3	343.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids
rho1	871.11	kg/m3	353.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids
rho1	861.99	kg/m3	363.15	Density, Viscosity, and Electrical Conductivity of Protic Amidium Bis(trifluoromethanesulfonyl)amide Ionic Liquids

Sources

Crippen Method:

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

Crippen Method:

https://www.chemeo.com/doc/models/crippen_log10ws

Density, Viscosity, and Electrical
Conductivity of Protic Amidium
Bis(trifluoromethanesulfonyl)amide
Ionic Liquids:

<https://www.doi.org/10.1021/acs.jced.6b00575>

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=C758963&Units=SI>

Legend

basg:	Gas basicity
chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase 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
rho:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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