N,N-Dimethyldodecanamide

Other names:	Dodecanamide, N,N-dimethyl-
	Hallcomid M 12
	Lauryl N,N-dimethylamide
	N,N-Dimethyldodecamide
	N,N-Dimethyllauramide
	1-Dodecanamide, N,N-dimethyl-
Inchi:	InChI=1S/C14H29NO/c1-4-5-6-7-8-9-10-11-12-13-14(16)15(2)3/h4-13H2,1-3H3
InchiKey:	BDYUSDIJIDGWCY-UHFFFAOYSA-N
Formula:	C14H29NO
SMILES:	CCCCCCCCCCCC(=O)N(C)C
Mol. weight [g/mol]:	227.39
CAS:	3007-53-2

Physical Properties

Property code	Value	Unit	Source
gf	48.86	kJ/mol	Joback Method
hf	-377.34	kJ/mol	Joback Method
hfus	36.64	kJ/mol	Joback Method
hvap	55.55	kJ/mol	Joback Method
log10ws	-4.03		Crippen Method
logp	3.996		Crippen Method
mcvol	219.670	ml/mol	McGowan Method
pc	1598.72	kPa	Joback Method
rinpol	1504.00		NIST Webbook
tb	586.03	K	Joback Method
tc	752.99	K	Joback Method
tf	329.94	K	Joback Method
vc	0.844	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	576.06	J/mol×K	586.03	Joback Method
cpg	593.60	J/mol×K	613.86	Joback Method

cpg	610.38	J/mol×K	641.68	Joback Method
cpg	626.41	J/mol×K	669.51	Joback Method
cpg	641.73	J/mol×K	697.34	Joback Method
cpg	656.35	J/mol×K	725.16	Joback Method
cpg	670.31	J/mol×K	752.99	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	453.50 ± 0.50	K	2.00	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C3007532&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
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tbrp: Boiling point at reduced pressure
tc: Critical Temperature
tf: Normal melting (fusion) point

vc: Critical Volume