Tetradecaneamide

Other names:	Myristamide
	Myristic acid amide
	Myristic amide
	Tetradecylamide
Inchi:	InChI=1S/C14H29NO/c1-2-3-4-5-6-7-8-9-10-11-12-13-14(15)16/h2-13H2,1H3,(H2,15,16)
InchiKey:	QEALYLRSRQDCRA-UHFFFAOYSA-N
Formula:	C14H29NO
SMILES:	CCCCCCCCCCCCCC(N)=O
Mol. weight [g/mol]:	227.39

Physical Properties

Property code	Value	Unit	Source
af	0.8682		Cheméo Relay (1.0)
gf	4.53	kJ/mol	Joback Method
hf	-541.29	kJ/mol	Cheméo Relay (1.0)
hfus	38.81	kJ/mol	Joback Method
hvap	89.79	kJ/mol	Cheméo Relay (1.0)
ie	9.71	eV	Cheméo Relay (1.0)
log10ws	-5.12		Cheméo Relay (1.0)
logp	4.173		Crippen Method
mcvol	219.670	ml/mol	McGowan Method
pc	1676.91	kPa	Joback Method
rinpol	1921.00		NIST Webbook
rinpol	1921.00		NIST Webbook
tb	571.67	K	Cheméo Relay (1.0)
tc	770.02	K	Cheméo Relay (1.0)
tf	376.40 ± 1.00	K	NIST Webbook
tf	378.00 ± 4.00	K	NIST Webbook
tf	376.70 ± 2.00	K	NIST Webbook
tf	379.00 ± 2.00	K	NIST Webbook
tf	378.30 ± 0.80	K	NIST Webbook
tf	379.00 ± 3.00	K	NIST Webbook
tf	377.90 ± 0.70	K	NIST Webbook
tf	372.70 ± 5.00	K	NIST Webbook
vc	0.857	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	611.85	J/mol×K	646.12	Joback Method
cpg	628.58	J/mol×K	675.67	Joback Method
cpg	644.53	J/mol×K	705.23	Joback Method
cpg	659.74	J/mol×K	734.78	Joback Method
cpg	674.22	J/mol×K	764.33	Joback Method
cpg	687.99	J/mol×K	793.89	Joback Method
cpg	701.09	J/mol×K	823.44	Joback Method
hsubt	167.40 ± 2.50	kJ/mol	311.50	NIST Webbook

Sources

Cheméo Relay (1.0, beta):

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C638584&Units=SI

Joback Method: https://en.wikipedia.org/wiki/Joback_method

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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

Cheméo Relay (1.0):

Legend

af: Acentric Factor

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

hsubt: Enthalpy of sublimation at a given temperature

hvap: Enthalpy of vaporization at standard conditions

ie: Ionization energy

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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume