Decanamide-

Other names:	capramide
	decan-1-amide
	decanamide
	decanoic acid amide
	decylamide
	n-decanamide
Inchi:	InChI=1S/C10H21NO/c1-2-3-4-5-6-7-8-9-10(11)12/h2-9H2,1H3,(H2,11,12)
InchiKey:	TUTWLYPCGCUWQI-UHFFFAOYSA-N
Formula:	C10H21NO
SMILES:	CCCCCCCCCC(=N)O
Mol. weight [g/mol]:	171.28
CAS:	2319-29-1

Physical Properties

Property code	Value	Unit	Source
gf	100.10	kJ/mol	Joback Method
hf	-203.63	kJ/mol	Joback Method
hfus	15.10	kJ/mol	Heat Capacities and Enthalpies of Solid-Solid Transitions and Fusion of a Series of Eleven Primary Alkylamides by Differential Scanning Calorimetry
hvap	66.61	kJ/mol	Joback Method
log10ws	-4.74		Crippen Method
logp	3.662		Crippen Method
mcvol	163.310	ml/mol	McGowan Method
rinpol	1521.00		NIST Webbook
tb	604.72	K	Joback Method
tf	371.60 ± 0.70	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	80.80	J/mol×K	100.12	Joback Method

cpg	80.80	J/mol×K	100.12	Joback Method
cpg	430.26	J/mol×K	604.72	Joback Method
cpg	80.80	J/mol×K	100.12	Joback Method
cpg	80.80	J/mol×K	100.12	Joback Method
cpg	80.80	J/mol×K	100.12	Joback Method
cpg	80.80	J/mol×K	100.12	Joback Method
hfust	15.10	kJ/mol	370.60	NIST Webbook
hsubt	125.90 ± 1.30	kJ/mol	361.50	NIST Webbook

Sources

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=C2319291&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Heat Capacities and Enthalpies of Solid-Solid Transitions and Fusion of a Series of Eleven Primary Alkylamides by Differential Scanning Calorimetry:	https://www.doi.org/10.1021/je700662a

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
hfust:	Enthalpy of fusion at a given temperature
hsubt:	Enthalpy of sublimation at a given temperature
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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tf:	Normal melting (fusion) point