

Butanamide, N,N-didecyl-

Inchi:	InChI=1S/C24H49NO/c1-4-7-9-11-13-15-17-19-22-25(24(26)21-6-3)23-20-18-16-14-12-1
InchiKey:	QZAKFDDSRIEOAG-UHFFFAOYSA-N
Formula:	C24H49NO
SMILES:	CCCCCCCCCN(CCCCCCCCCC)C(=O)CCC
Mol. weight [g/mol]:	367.65

Physical Properties

Property code	Value	Unit	Source
gf	133.06	kJ/mol	Joback Method
hf	-583.74	kJ/mol	Joback Method
hfus	62.54	kJ/mol	Joback Method
hvap	77.81	kJ/mol	Joback Method
log10ws	-8.21		Crippen Method
logp	7.896		Crippen Method
mcvol	360.570	ml/mol	McGowan Method
pc	834.83	kPa	Joback Method
rinpol	2559.00		NIST Webbook
rinpol	2559.00		NIST Webbook
tb	814.83	K	Joback Method
tc	997.65	K	Joback Method
tf	442.64	K	Joback Method
vc	1.403	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1167.24	J/mol×K	814.83	Joback Method
cpg	1189.23	J/mol×K	845.30	Joback Method
cpg	1210.10	J/mol×K	875.77	Joback Method
cpg	1229.88	J/mol×K	906.24	Joback Method
cpg	1248.65	J/mol×K	936.71	Joback Method
cpg	1266.43	J/mol×K	967.18	Joback Method
cpg	1283.29	J/mol×K	997.65	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U308683&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
rlnpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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