

Stearic acid hydrazide

Other names:	Stearic hydrazide Octadecanoic acid, hydrazide Stearohydrazide Stearoylhydrazine
Inchi:	InChI=1S/C18H38N2O/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18(21)20-19/h2-17,
InchiKey:	BYTFESSQUGDMQQ-UHFFFAOYSA-N
Formula:	C18H38N2O
SMILES:	CCCCCCCCCCCCCCCC(=O)NN
Mol. weight [g/mol]:	298.51
CAS:	4130-54-5

Physical Properties

Property code	Value	Unit	Source
gf	127.60	kJ/mol	Joback Method
hf	-440.17	kJ/mol	Joback Method
hfus	54.27	kJ/mol	Joback Method
hvap	79.48	kJ/mol	Joback Method
log10ws	-6.75		Crippen Method
logp	5.238		Crippen Method
mcvol	286.010	ml/mol	McGowan Method
pc	1263.75	kPa	Joback Method
tb	787.81	K	Joback Method
tc	971.05	K	Joback Method
tf	478.47	K	Joback Method
vc	1.113	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	902.96	J/molxK	787.81	Joback Method
cpg	920.94	J/molxK	818.35	Joback Method
cpg	937.98	J/molxK	848.89	Joback Method
cpg	954.13	J/molxK	879.43	Joback Method
cpg	969.42	J/molxK	909.97	Joback Method

cpg	983.88	J/mol×K	940.51	Joback Method
cpg	997.57	J/mol×K	971.05	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4130545&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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

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