

1-Decanamine, N,N-didecyl-

Other names:	Tris(decyl)amine Tri-N-decylamine Tri(decyl)amine N,N-Didecyl-1-decanamine
Inchi:	InChI=1S/C30H63N/c1-4-7-10-13-16-19-22-25-28-31(29-26-23-20-17-14-11-8-5-2)30-27
InchiKey:	COFKFSSWMQHKMD-UHFFFAOYSA-N
Formula:	C30H63N
SMILES:	CCCCCCCCCN(CCCCCCCCCC)CCCCCCCCCC
Mol. weight [g/mol]:	437.83
CAS:	1070-01-5

Physical Properties

Property code	Value	Unit	Source
chl	-20070.90 ± 3.10	kJ/mol	NIST Webbook
gf	312.50	kJ/mol	Joback Method
hf	-595.00	kJ/mol	Joback Method
hfl	-738.00 ± 3.20	kJ/mol	NIST Webbook
hfus	76.48	kJ/mol	Joback Method
hvap	84.42	kJ/mol	Joback Method
log10ws	-10.95		Crippen Method
logp	10.710		Crippen Method
mcvol	443.540	ml/mol	McGowan Method
pc	594.88	kPa	Joback Method
rinpol	2862.00		NIST Webbook
rinpol	2863.00		NIST Webbook
rinpol	2862.00		NIST Webbook
tb	898.24	K	Joback Method
tc	1109.98	K	Joback Method
tf	460.33	K	Joback Method
vc	1.734	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
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cpg	1528.99	J/mol×K	898.24	Joback Method
cpg	1556.87	J/mol×K	933.53	Joback Method
cpg	1583.14	J/mol×K	968.82	Joback Method
cpg	1607.90	J/mol×K	1004.11	Joback Method
cpg	1631.24	J/mol×K	1039.40	Joback Method
cpg	1653.28	J/mol×K	1074.69	Joback Method
cpg	1674.11	J/mol×K	1109.98	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1070015&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase 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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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