

# Cyclododecylamine

<b>Other names:</b>	Cyclododecanamine
<b>Inchi:</b>	InChI=1S/C12H25N/c13-12-10-8-6-4-2-1-3-5-7-9-11-12/h12H,1-11,13H2
<b>InchiKey:</b>	HBGGBCVEFUPUNY-UHFFFAOYSA-N
<b>Formula:</b>	C12H25N
<b>SMILES:</b>	NC1CCCCCCCCCCC1
<b>Mol. weight [g/mol]:</b>	183.33
<b>CAS:</b>	1502-03-0

## Physical Properties

Property code	Value	Unit	Source
gf	68.46	kJ/mol	Joback Method
hf	-239.86	kJ/mol	Joback Method
hfus	11.27	kJ/mol	Joback Method
hvap	54.41	kJ/mol	Joback Method
log10ws	-4.29		Crippen Method
logp	3.618		Crippen Method
mcvol	179.060	ml/mol	McGowan Method
pc	2608.40	kPa	Joback Method
tb	591.66	K	Joback Method
tc	840.53	K	Joback Method
tf	294.52	K	Joback Method
vc	0.622	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	481.75	J/mol×K	591.66	Joback Method
cpg	509.04	J/mol×K	633.14	Joback Method
cpg	534.51	J/mol×K	674.62	Joback Method
cpg	558.16	J/mol×K	716.10	Joback Method
cpg	579.97	J/mol×K	757.58	Joback Method
cpg	599.94	J/mol×K	799.05	Joback Method
cpg	618.05	J/mol×K	840.53	Joback Method

# Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	396.20	K	0.90	NIST Webbook

## Sources

<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C1502030&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C1502030&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Thermodynamic study of (heptane + amine) mixtures. III: Excess and partial molar volumes in mixtures with secondary, tertiary, and cyclic amines at 298.15 K:</b>	<a href="https://www.doi.org/10.1016/j.jct.2011.04.017">https://www.doi.org/10.1016/j.jct.2011.04.017</a>
<b>Joback Method</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tbrp:</b>	Boiling point at reduced pressure
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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