

# 1-Butanone, 3,3'-(1,2-ethanediyldinitrilo)bis[1-phenyl-

**Other names:** Butyrophenone, 3,3'-(ethylenedinitrilo)di-3-[(2-([1-Methyl-3-oxo-3-phenylpropylidene]amino)ethyl)imino]-1-phenyl-1-butanone  
N,N'-Ethylenebis(3-amino-1-phenyl-but-2-en-1-one)

**Inchi:** InChI=1S/C22H24N2O2/c1-17(15-21(25)19-9-5-3-6-10-19)23-13-14-24-18(2)16-22(26)2

**InchiKey:** CODOLTFDVS RVJU-UHFFFAOYSA-N

**Formula:** C<sub>22</sub>H<sub>24</sub>N<sub>2</sub>O<sub>2</sub>

**SMILES:** CC(CC(=O)c1ccccc1)=NCCN=C(C)CC(=O)c1ccccc1

**Mol. weight [g/mol]:** 348.44

**CAS:** 16087-30-2

## Physical Properties

Property code	Value	Unit	Source
chs	-11783.90 ± 4.20	kJ/mol	NIST Webbook
hf	-104.50 ± 7.50	kJ/mol	NIST Webbook
hfs	-303.30 ± 5.10	kJ/mol	NIST Webbook
hsub	198.80 ± 5.30	kJ/mol	NIST Webbook
hsub	198.80 ± 5.30	kJ/mol	NIST Webbook
hvap	89.40	kJ/mol	Joback Method
log10ws	-5.28		Crippen Method
logp	4.454		Crippen Method
mcvol	287.820	ml/mol	McGowan Method
pc	1330.04	kPa	Joback Method
tb	1016.98	K	Joback Method
tc	1266.55	K	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hsubt	192.90 ± 5.30	kJ/mol	416.50	NIST Webbook

# Sources

<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<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=C16087302&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C16087302&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>

# Legend

<b>chs:</b>	Standard solid enthalpy of combustion
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfs:</b>	Solid phase enthalpy of formation at standard conditions
<b>hsub:</b>	Enthalpy of sublimation at standard conditions
<b>hsubt:</b>	Enthalpy of sublimation at a given temperature
<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>tc:</b>	Critical Temperature

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