

# Mephenytoin

**Other names:**

2,4-Imidazolidinedione, 5-ethyl-3-methyl-5-phenyl-Hydantoin, 5-ethyl-3-methyl-5-phenyl-Epiazin  
Epilan  
Fenantoin  
Insulton  
Mesantoin  
Mesontoin  
Methoin  
Methylphenetoin  
Metydan  
Phenantoin  
Phenylethylmethylhydantoin  
Sacerno  
Sedantoin  
Triantoin  
5-Ethyl-3-methyl-5-phenylhydantoin  
Methyl hydantoin  
Sedantoinal  
3-Methyl-5-ethyl-5-phenylhydantoin  
3-Methyl-5,5-ethylphenylhydantoin  
3-Methyl-5,5-phenylethylhydantoin  
5-Ethyl-3-methyl-5-phenyl-2,4(3H,5H)-imidazoledione  
5-Ethyl-3-methyl-5-phenylimidazolidin-2,4-dione  
5-Ethyl-5-fenyl-3-methylhydantoin  
5-Ethyl-3-methyl-5-phenyl-2,4-imidazolidinedione  
3-Ethylnirvanol  
Gerot-epilan  
Mephentoin  
NSC-34652  
Mesdontoin  
Sedantoinal  
(./-.)-5-Ethyl-3-methyl-5-phenylhydantoin

**Inchi:** InChI=1S/C12H14N2O2/c1-3-12(9-7-5-4-6-8-9)10(15)14(2)11(16)13-12/h4-8H,3H2,1-2H3  
**InchiKey:** GMHKMTDVRCWUDX-UHFFFAOYSA-N  
**Formula:** C12H14N2O2  
**SMILES:** CCC1(c2ccccc2)NC(=O)N(C)C1=O  
**Mol. weight [g/mol]:** 218.25  
**CAS:** 50-12-4

# Physical Properties

Property code	Value	Unit	Source
log10ws	-2.30		Crippen Method
logp	1.474		Crippen Method
mcvol	168.420	ml/mol	McGowan Method
rinpol	1780.00		NIST Webbook
rinpol	1786.00		NIST Webbook
rinpol	1795.00		NIST Webbook
rinpol	1748.00		NIST Webbook
rinpol	1765.00		NIST Webbook
rinpol	1770.00		NIST Webbook
rinpol	1796.00		NIST Webbook
rinpol	1796.00		NIST Webbook
rinpol	1791.00		NIST Webbook

## Sources

<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
<b>Crippen Method:</b>	<a href="https://www.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.com/doc/models/crippen_log10ws</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=C50124&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C50124&amp;Units=SI</a>

## Legend

<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>rinpol:</b>	Non-polar retention indices

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