

2,4-Imidazolidinedione, 5-ethyl-5-methyl-

Other names:	Hydantoin, 5-ethyl-5-methyl- Methylethylhydantoin T11 5-Ethyl-5-methylhydantoin 5-Methyl-5-ethylhydantoin 5-Ethyl-5-methyl-2,4-imidazolidinedione NSC 1020 5-ethyl-5-methylimidazolidine-2,4-dione
Inchi:	InChI=1S/C6H10N2O2/c1-3-6(2)4(9)7-5(10)8-6/h3H2,1-2H3,(H2,7,8,9,10)
InchiKey:	VSJRBQDMBFFHMC-UHFFFAOYSA-N
Formula:	C6H10N2O2
SMILES:	CCC1(C)NC(=O)NC1=O
Mol. weight [g/mol]:	142.16
CAS:	5394-36-5

Physical Properties

Property code	Value	Unit	Source
gf	-39.06	kJ/mol	Joback Method
hf	-291.23	kJ/mol	Joback Method
hfus	17.13	kJ/mol	Joback Method
hvap	50.07	kJ/mol	Joback Method
log10ws	-1.25		Crippen Method
logp	-0.006		Crippen Method
mcvol	107.640	ml/mol	McGowan Method
pc	4762.81	kPa	Joback Method
tb	584.94	K	Joback Method
tc	841.13	K	Joback Method
tf	538.68	K	Joback Method
vc	0.399	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	264.81	J/molxK	584.94	Joback Method

cpg	278.58	J/mol×K	627.64	Joback Method
cpg	291.78	J/mol×K	670.34	Joback Method
cpg	304.47	J/mol×K	713.03	Joback Method
cpg	316.70	J/mol×K	755.73	Joback Method
cpg	328.51	J/mol×K	798.43	Joback Method
cpg	339.96	J/mol×K	841.13	Joback Method

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C5394365&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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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