3,3-Diethyl-5-methyl-piperidine-2,4,6-trione

Other names: 3,3-Diethyl-5-methyl-2,4,6-piperidinetrione
6-Oxomethyprylon
Glutarimide, 2,2-diethyl-4-methyl-3-oxo-
Methyprylon M (oxo)
Inchi: InChI=1S/C10H15NO3/c1-4-10(5-2)7(12)6(3)8(13)11-9(10)14/h6H,4-5H2,1-3H3,(H,11,13
InchiKey: MBJIJGJXNJWDEM-UHFFFAOYSA-N
Formula: C10H15NO3
SMILES: CCC1(CC)C(=O)NC(=O)C(C)C1=O
Mol. weight [g/mol]: 197.23
CAS: 13056-28-5

Physical Properties

Property code	Value	Unit	Source
gf	-235.49	kJ/mol	Joback Method
hf	-575.80	kJ/mol	Joback Method
hfus	16.38	kJ/mol	Joback Method
hvap	56.32	kJ/mol	Joback Method
log10ws	-1.44		Crippen Method
logp	0.654		Crippen Method
mcvol	155.590	ml/mol	McGowan Method
pc	2982.79	kPa	Joback Method
rinpol	1870.00		NIST Webbook
rinpol	1870.00		NIST Webbook
tb	695.33	K	Joback Method
tc	947.35	K	Joback Method
tf	539.19	K	Joback Method
vc	0.584	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	449.61	J/mol×K	695.33	Joback Method
cpg	467.98	J/mol×K	737.33	Joback Method
cpg	485.45	J/mol×K	779.34	Joback Method

cpg	502.04	J/mol×K	821.34	Joback Method
cpg	517.76	J/mol×K	863.34	Joback Method
cpg	532.60	J/mol×K	905.34	Joback Method
cpg	546.59	J/mol×K	947.35	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13056285&Units=SI

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume