1,3-Dioxane-4,6-dione, 2,2-dimethyl-

Other names:	Malonic acid, cyclic isopropylidene ester
	Cyclic isopropylidene malonate
	Isopropylidene malonate
	Meldrum's acid
	2,2-Dimethyl-1,3-dioxane-4,6-dione
	Meldrums acid
	2,2-Dimethyl-m-dioxane-4,6-dione
	4,6-Diketo-2,2-dimethyl-1,3-dioxane
	2,2-Dimethyl-1,3-dioxan-4,6-dione
	m-Dioxane-4,6-dione, 2,2-dimethyl-
	2,2-Dimethyl-4,6-dioxo-m-dioxane
	2,2-Dimethyl-4,6-dioxo-1,3-dioxane
	NSC 71902
Inchi:	InChI=1S/C6H8O4/c1-6(2)9-4(7)3-5(8)10-6/h3H2,1-2H3
InchiKey:	GXHFUVWIGNLZSC-UHFFFAOYSA-N
Formula:	C6H8O4
SMILES:	CC1(C)OC(=O)CC(=O)O1
Mol. weight [g/mol]:	144.13
CAS:	2033-24-1

Physical Properties

Property code	Value	Unit	Source
gf	-398.82	kJ/mol	Joback Method
hf	-637.01	kJ/mol	Joback Method
hfus	11.81	kJ/mol	Joback Method
hvap	45.74	kJ/mol	Joback Method
log10ws	-0.56		Crippen Method
logp	0.213		Crippen Method
mcvol	99.420	ml/mol	McGowan Method
pc	4492.23	kPa	Joback Method
tb	546.01	K	Joback Method
tc	797.64	K	Joback Method
tf	378.24	K	Joback Method
vc	0.358	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	242.53	J/mol×K	546.01	Joback Method
cpg	255.58	J/mol×K	587.95	Joback Method
cpg	268.00	J/mol×K	629.89	Joback Method
cpg	279.83	J/mol×K	671.83	Joback Method
cpg	291.14	J/mol×K	713.77	Joback Method
cpg	301.97	J/mol×K	755.70	Joback Method
cpg	312.39	J/mol×K	797.64	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=C2033241&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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume