Ethanedione, (4-methoxyphenyl)phenyl-

Other names:	Benzil, 4-methoxy-
	p-Methoxybenzil
	4-Methoxybenzil
	1-(4-Methoxyphenyl)-2-phenyl-ethan-1,2-dion
	1-(4-Methoxyphenyl)-2-phenyl-ethan-1,2-dione
	1-(4-Methoxyphenyl)-2-phenyl-1,2-ethanedione
	Dibenzoyl, 4-methoxy
	NSC 39465
Inchi:	InChI=1S/C15H12O3/c1-18-13-9-7-12(8-10-13)15(17)14(16)11-5-3-2-4-6-11/h2-10H,1H3
InchiKey:	NTINAJCDYRYMML-UHFFFAOYSA-N
Formula:	C15H12O3
SMILES:	COc1ccc(C(=O)C(=O)c2ccccc2)cc1
Mol. weight [g/mol]:	240.25
CAS:	22711-21-3

Physical Properties

Property code	Value	Unit	Source
gf	-72.23	kJ/mol	Joback Method
hf	-248.72	kJ/mol	Joback Method
hfus	26.68	kJ/mol	Joback Method
hvap	70.10	kJ/mol	Joback Method
log10ws	-3.72		Crippen Method
logp	2.761		Crippen Method
mcvol	183.700	ml/mol	McGowan Method
pc	2764.26	kPa	Joback Method
rinpol	2086.00		NIST Webbook
rinpol	2086.00		NIST Webbook
tb	731.10	K	Joback Method
tc	975.09	K	Joback Method
tf	446.26	K	Joback Method
vc	0.690	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	480.02	J/mol×K	731.10	Joback Method
cpg	536.90	J/mol×K	934.42	Joback Method
cpg	527.71	J/mol×K	893.76	Joback Method
cpg	517.48	J/mol×K	853.09	Joback Method
cpg	506.15	J/mol×K	812.43	Joback Method
cpg	493.68	J/mol×K	771.76	Joback Method
cpg	545.09	J/mol×K	975.09	Joback Method
dvisc	0.0001379	Pa×s	731.10	Joback Method
dvisc	0.0001724	Pa×s	683.63	Joback Method
dvisc	0.0002229	Pa×s	636.15	Joback Method
dvisc	0.0003004	Pa×s	588.68	Joback Method
dvisc	0.0004265	Pa×s	541.21	Joback Method
dvisc	0.0006479	Pa×s	493.73	Joback Method
dvisc	0.0010757	Pa×s	446.26	Joback Method

Sources

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=C22711213&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg: Ideal gas heat capacity
dvisc: Dynamic viscosity
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

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