2-Buten-1-one, 1-phenyl-

Other names:	Crotonophenone
	Ethylideneacetophenone
	Phenyl propenyl ketone
	Phenyl 1-propenyl ketone
	2-Butenophenone
	1-Benzoyl-1-propene
	1-Phenyl-2-buten-1-one
Inchi:	InChI=1S/C10H10O/c1-2-6-10(11)9-7-4-3-5-8-9/h2-8H,1H3/b6-2+
InchiKey:	FUJZJBCWPIOHHN-QHHAFSJGSA-N
Formula:	C10H10O
SMILES:	CC=CC(=O)c1ccccc1
Mol. weight [g/mol]:	146.19
CAS:	495-41-0

Physical Properties

Property code	Value	Unit	Source
gf	97.03	kJ/mol	Joback Method
hf	-8.56	kJ/mol	Joback Method
hfus	17.50	kJ/mol	Joback Method
hvap	46.83	kJ/mol	Joback Method
log10ws	-2.82		Crippen Method
logp	2.445		Crippen Method
mcvol	125.270	ml/mol	McGowan Method
pc	3333.53	kPa	Joback Method
ripol	2095.00		NIST Webbook
tb	512.91	K	Joback Method
tc	738.22	K	Joback Method
tf	273.73	K	Joback Method
vc	0.473	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	258.70	J/mol×K	512.91	Joback Method

cpg	272.10	J/mol×K	550.46	Joback Method
cpg	284.57	J/mol×K	588.01	Joback Method
cpg	296.15	J/mol×K	625.56	Joback Method
cpg	306.90	J/mol×K	663.11	Joback Method
cpg	316.88	J/mol×K	700.67	Joback Method
cpg	326.13	J/mol×K	738.22	Joback Method
dvisc	0.0028529	Pa×s	273.73	Joback Method
dvisc	0.0014163	Pa×s	313.59	Joback Method
dvisc	0.0008235	Pa×s	353.46	Joback Method
dvisc	0.0005344	Pa×s	393.32	Joback Method
dvisc	0.0003755	Pa×s	433.18	Joback Method
dvisc	0.0002801	Pa×s	473.05	Joback Method
dvisc	0.0002186	Pa×s	512.91	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=C495410&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point

vc: Critical Volume