1,4-Pentadien-3-one, 1,5-diphenyl-, (Z,Z)-

Other names: (1Z,4Z)-1,5-Diphenyl-1,4-pentadien-3-one
Inchi: InChI=1S/C17H14O/c18-17(13-11-15-7-3-1-4-8-15)14-12-16-9-5-2-6-10-16/h1-14H/b13-1
InchiKey: WMKGGPCROCCUDY-XSYHWHKQSA-N
Formula: C17H14O
SMILES: O=C(C=Cc1ccccc1)C=Cc1ccccc1
Mol. weight [g/mol]: 234.29
CAS: 58321-78-1

Physical Properties

Property code	Value	Unit	Source
gf	348.60	kJ/mol	Joback Method
hf	200.71	kJ/mol	Joback Method
hfus	29.87	kJ/mol	Joback Method
hvap	64.65	kJ/mol	Joback Method
log10ws	-4.47		Crippen Method
logp	3.982		Crippen Method
mcvol	195.840	ml/mol	McGowan Method
pc	2448.32	kPa	Joback Method
rinpol	2122.00		NIST Webbook
rinpol	2122.00		NIST Webbook
tb	703.91	K	Joback Method
tc	954.96	K	Joback Method
tf	373.96	K	Joback Method
vc	0.738	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	498.70	J/mol×K	703.91	Joback Method
cpg	514.49	J/mol×K	745.75	Joback Method
cpg	528.96	J/mol×K	787.59	Joback Method
cpg	542.24	J/mol×K	829.43	Joback Method
cpg	554.49	J/mol×K	871.27	Joback Method
cpg	565.84	J/mol×K	913.11	Joback Method

cpg	576.44	J/mol×K	954.96	Joback Method
dvisc	0.0015983	Pa×s	373.96	Joback Method
dvisc	0.0007579	Pa×s	428.95	Joback Method
dvisc	0.0004258	Pa×s	483.94	Joback Method
dvisc	0.0002691	Pa×s	538.93	Joback Method
dvisc	0.0001851	Pa×s	593.93	Joback Method
dvisc	0.0001357	Pa×s	648.92	Joback Method
dvisc	0.0001044	Pa×s	703.91	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=C58321781&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
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.