Phenol, 4-cyclopentyl-

Other names: 4-Cyclopentylphenol
Phenol, p-cyclopentyl-
Inchi: InChI=1S/C11H14O/c12-11-7-5-10(6-8-11)9-3-1-2-4-9/h5-9,12H,1-4H2
InchiKey: SNBKPVVDUBFDEJ-UHFFFAOYSA-N
Formula: C11H14O
SMILES: Oc1ccc(C2CCCC2)cc1
Mol. weight [g/mol]: 162.23
CAS: 1518-83-8

Physical Properties

Property code	Value	Unit	Source
gf	36.08	kJ/mol	Joback Method
hf	-150.67	kJ/mol	Joback Method
hfus	18.00	kJ/mol	Joback Method
hvap	55.63	kJ/mol	Joback Method
log10ws	-2.94		Crippen Method
logp	3.050		Crippen Method
mcvol	137.100	ml/mol	McGowan Method
pc	3838.78	kPa	Joback Method
tb	573.66	K	Joback Method
tc	822.04	K	Joback Method
tf	362.77	K	Joback Method
vc	0.451	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	344.56	J/mol×K	573.66	Joback Method
cpg	361.81	J/mol×K	615.06	Joback Method
cpg	377.69	J/mol×K	656.45	Joback Method
cpg	392.31	J/mol×K	697.85	Joback Method
cpg	405.83	J/mol×K	739.25	Joback Method
cpg	418.37	J/mol×K	780.64	Joback Method
cpg	430.07	J/mol×K	822.04	Joback Method

dvisc	0.0028288	Pa×s	362.77	Joback Method
dvisc	0.0011205	Pa×s	397.92	Joback Method
dvisc	0.0005158	Pa×s	433.07	Joback Method
dvisc	0.0002668	Pa×s	468.21	Joback Method
dvisc	0.0001513	Pa×s	503.36	Joback Method
dvisc	0.0000924	Pa×s	538.51	Joback Method
dvisc	0.0000599	Pa×s	573.66	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	428.20	K	1.60	NIST Webbook

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=C1518838&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
tb: Normal Boiling Point Temperature
tbrp: Boiling point at reduced pressure

tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume