Phenol, 2-cyclohexyl-

Other names: Phenol, o-cyclohexyl-
o-Cyclohexylphenol
2-Cyclohexylphenol
Inchi: InChI=1S/C12H16O/c13-12-9-5-4-8-11(12)10-6-2-1-3-7-10/h4-5,8-10,13H,1-3,6-7H2
InchiKey: MVRPPTGLVPEMPI-UHFFFAOYSA-N
Formula: C12H16O
SMILES: Oc1ccccc1C1CCCCC1
Mol. weight [g/mol]: 176.25
CAS: 119-42-6

Physical Properties

Property code	Value	Unit	Source
gf	32.40	kJ/mol	Joback Method
hf	-177.47	kJ/mol	Joback Method
hfus	18.50	kJ/mol	Joback Method
hvap	58.03	kJ/mol	Joback Method
log10ws	-3.36		Crippen Method
logp	3.440		Crippen Method
mcvol	151.190	ml/mol	McGowan Method
pc	3522.09	kPa	Joback Method
tb	600.81	K	Joback Method
tc	852.64	K	Joback Method
tf	327.90 ± 0.70	K	NIST Webbook
vc	0.498	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	394.52	J/mol×K	600.81	Joback Method
cpg	413.37	J/mol×K	642.78	Joback Method
cpg	430.73	J/mol×K	684.75	Joback Method
cpg	446.75	J/mol×K	726.72	Joback Method
cpg	461.56	J/mol×K	768.70	Joback Method
cpg	475.28	J/mol×K	810.67	Joback Method

cpg	488.07	J/mol×K	852.64	Joback Method
dvisc	0.0025484	Pa×s	370.52	Joback Method
dvisc	0.0008995	Pa×s	408.90	Joback Method
dvisc	0.0003796	Pa×s	447.28	Joback Method
dvisc	0.0001836	Pa×s	485.66	Joback Method
dvisc	0.0000988	Pa×s	524.05	Joback Method
dvisc	0.0000578	Pa×s	562.43	Joback Method
dvisc	0.0000363	Pa×s	600.81	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=C119426&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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume