3-Cyclopentyl-1-propanol

Other names: Cyclopentanepropanol-
Inchi: InChI=1S/C8H16O/c9-7-3-6-8-4-1-2-5-8/h8-9H,1-7H2
InchiKey: IBMXMCXCSPGCDQ-UHFFFAOYSA-N
Formula: C8H16O
SMILES: OCCCC1CCCC1
Mol. weight [g/mol]: 128.21
CAS: 767-05-5

Physical Properties

Property code	Value	Unit	Source
gf	-83.79	kJ/mol	Joback Method
hf	-300.20	kJ/mol	Joback Method
hfus	14.50	kJ/mol	Joback Method
hvap	50.34	kJ/mol	Joback Method
log10ws	-2.09		Crippen Method
logp	1.949		Crippen Method
mcvol	118.590	ml/mol	McGowan Method
pc	3403.91	kPa	Joback Method
tb	489.90	K	Joback Method
tc	673.77	K	Joback Method
tf	251.64	K	Joback Method
vc	0.444	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	274.85	J/mol×K	489.90	Joback Method
cpg	338.24	J/mol×K	643.12	Joback Method
cpg	326.82	J/mol×K	612.48	Joback Method
cpg	314.80	J/mol×K	581.83	Joback Method
cpg	302.15	J/mol×K	551.19	Joback Method
cpg	288.84	J/mol×K	520.54	Joback Method
cpg	349.07	J/mol×K	673.77	Joback Method
dvisc	0.0002152	Pa×s	489.90	Joback Method

dvisc	0.0003496	Pa×s	450.19	Joback Method
dvisc	0.0006238	Pa×s	410.48	Joback Method
dvisc	0.0012598	Pa×s	370.77	Joback Method
dvisc	0.0030120	Pa×s	331.06	Joback Method
dvisc	0.0091321	Pa×s	291.35	Joback Method
dvisc	0.0392939	Pa×s	251.64	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	367.20	K	1.00	NIST Webbook

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=C767055&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
tbrp: Boiling point at reduced pressure
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume