

4-Methyl-2-propylphenol

Other names:	2-Propyl-4-methylphenol Phenol, 4-methyl-2-propyl- p-Cresol, 2-propyl-
Inchi:	InChI=1S/C10H14O/c1-3-4-9-7-8(2)5-6-10(9)11/h5-7,11H,3-4H2,1-2H3
InchiKey:	NNPMYBBCIDUAJD-UHFFFAOYSA-N
Formula:	C10H14O
SMILES:	CCc1cc(C)ccc1O
Mol. weight [g/mol]:	150.22
CAS:	4074-46-8

Physical Properties

Property code	Value	Unit	Source
gf	-18.52	kJ/mol	Joback Method
hf	-201.98	kJ/mol	Joback Method
hfus	21.09	kJ/mol	Joback Method
hvap	53.81	kJ/mol	Joback Method
log10ws	-2.72		Crippen Method
logp	2.653		Crippen Method
mcvol	133.870	ml/mol	McGowan Method
pc	3407.89	kPa	Joback Method
tb	540.48	K	Joback Method
tc	759.98	K	Joback Method
tf	353.12	K	Joback Method
vc	0.454	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	311.31	J/mol×K	540.48	Joback Method
cpg	324.79	J/mol×K	577.06	Joback Method
cpg	337.41	J/mol×K	613.65	Joback Method
cpg	349.24	J/mol×K	650.23	Joback Method
cpg	360.34	J/mol×K	686.81	Joback Method
cpg	370.79	J/mol×K	723.39	Joback Method

cpg	380.67	J/molxK	759.98	Joback Method
dvisc	0.0022455	Paxs	353.12	Joback Method
dvisc	0.0009482	Paxs	384.35	Joback Method
dvisc	0.0004558	Paxs	415.57	Joback Method
dvisc	0.0002427	Paxs	446.80	Joback Method
dvisc	0.0001403	Paxs	478.03	Joback Method
dvisc	0.0000868	Paxs	509.25	Joback Method
dvisc	0.0000567	Paxs	540.48	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.99925e+01
Coeff. B	-6.40090e+03
Coeff. C	-9.34580e+01
Temperature range (K), min.	418.30
Temperature range (K), max.	529.46

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4074468&Units=SI
The Yaws Handbook of Vapor Pressure: Crippen Method:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Joback Method:	https://www.chemeo.com/doc/models/crippen_log10ws
	https://en.wikipedia.org/wiki/Joback_method

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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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