2-Propanol, 1-amino-, (S)-

Other names: (S)-(+)-1-Amino-2-propanol
(S)-(+)-1-aminopropan-2-ol
Inchi: InChI=1S/C3H9NO/c1-3(5)2-4/h3,5H,2,4H2,1H3/t3-/m1/s1
InchiKey: HXKKHQJGJAFBHI-GSVOUGTGSA-N
Formula: C3H9NO
SMILES: CC(O)CN
Mol. weight [g/mol]: 75.11
CAS: 2799-17-9

Physical Properties

Property code	Value	Unit	Source
gf	-98.43	kJ/mol	Joback Method
hf	-228.97	kJ/mol	Joback Method
hfus	9.29	kJ/mol	Joback Method
hvap	49.20	kJ/mol	Joback Method
log10ws	0.11		Crippen Method
logp	-0.674		Crippen Method
mcvol	68.980	ml/mol	McGowan Method
pc	5495.11	kPa	Joback Method
tb	433.20	K	NIST Webbook
tc	613.40	K	Joback Method
tf	252.65	K	Joback Method
vc	0.245	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	142.31	J/mol×K	432.31	Joback Method
cpg	149.06	J/mol×K	462.49	Joback Method
cpg	155.54	J/mol×K	492.67	Joback Method
cpg	161.74	J/mol×K	522.85	Joback Method
cpg	167.68	J/mol×K	553.03	Joback Method
cpg	173.36	J/mol×K	583.21	Joback Method
cpg	178.78	J/mol×K	613.40	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.61162e+01
Coeff. B	-4.27299e+03
Coeff. C	-6.15660e+01
Temperature range (K), min.	331.52
Temperature range (K), max.	457.04

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2799179&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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

Legend

cpg:	Ideal gas heat capacity
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