

arabinitol

Inchi:	InChI=1S/C5H12O5/c6-1-3(8)5(10)4(9)2-7/h3-10H,1-2H2/t3-,4-/m1/s1
InchiKey:	HEBKCHPVOIAQTA-QWWZWVQMSA-N
Formula:	C5H12O5
SMILES:	OCC(O)C(O)C(O)CO
Mol. weight [g/mol]:	152.15
CAS:	2152-56-9

Physical Properties

Property code	Value	Unit	Source
chs	-2564.00	kJ/mol	NIST Webbook
gf	-700.20	kJ/mol	Joback Method
hf	-923.52	kJ/mol	Joback Method
hfus	18.58	kJ/mol	Joback Method
hvap	108.95	kJ/mol	Joback Method
log10ws	1.43		Crippen Method
logp	-2.946		Crippen Method
mcvol	110.660	ml/mol	McGowan Method
pc	6785.20	kPa	Joback Method
tb	773.38	K	Joback Method
tc	947.56	K	Joback Method
tf	405.21	K	Joback Method
vc	0.393	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	334.42	J/molxK	773.38	Joback Method
cpg	340.20	J/molxK	802.41	Joback Method
cpg	345.68	J/molxK	831.44	Joback Method
cpg	350.87	J/molxK	860.47	Joback Method
cpg	355.79	J/molxK	889.50	Joback Method
cpg	360.45	J/molxK	918.53	Joback Method
cpg	364.86	J/molxK	947.56	Joback Method
dvisc	0.0076529	Paxs	405.21	Joback Method

dvisc	0.0003514	Paxs	466.57	Joback Method
dvisc	0.0000330	Paxs	527.93	Joback Method
dvisc	0.0000051	Paxs	589.30	Joback Method
dvisc	0.0000011	Paxs	650.66	Joback Method
dvisc	0.0000003	Paxs	712.02	Joback Method
dvisc	0.0000001	Paxs	773.38	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=C2152569&Units=SI

Legend

chs:	Standard solid enthalpy of combustion
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

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