

Arabinose(D)

Inchi:	InChI=1S/C5H10O5/c6-1-3(8)5(10)4(9)2-7/h1,3-5,7-10H,2H2/t3-,4-,5+/m0/s1
InchiKey:	PYMYPHUHKUWMLA-VAYJURFESA-N
Formula:	C5H10O5
SMILES:	O=CC(O)C(O)C(O)CO
Mol. weight [g/mol]:	150.13
CAS:	28697-53-2

Physical Properties

Property code	Value	Unit	Source
gf	-662.90	kJ/mol	Joback Method
hf	-856.87	kJ/mol	Joback Method
hfus	16.78	kJ/mol	Joback Method
hvap	99.00	kJ/mol	Joback Method
log10ws	1.41		Crippen Method
logp	-2.740		Crippen Method
mcvol	106.360	ml/mol	McGowan Method
pc	6588.38	kPa	Joback Method
tb	729.86	K	Joback Method
tc	900.63	K	Joback Method
tf	386.39	K	Joback Method
vc	0.391	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	331.77	J/molxK	900.63	Joback Method
cpg	327.65	J/molxK	872.17	Joback Method
cpg	323.29	J/molxK	843.71	Joback Method
cpg	318.67	J/molxK	815.24	Joback Method
cpg	313.78	J/molxK	786.78	Joback Method
cpg	308.60	J/molxK	758.32	Joback Method
cpg	303.13	J/molxK	729.86	Joback Method
cps	184.00	J/molxK	303.00	NIST Webbook
dvisc	0.0000024	Paxs	672.62	Joback Method

dvisc	0.0000073	Paxs	615.37	Joback Method
dvisc	0.0000276	Paxs	558.12	Joback Method
dvisc	0.0001411	Paxs	500.88	Joback Method
dvisc	0.0010983	Paxs	443.64	Joback Method
dvisc	0.0157042	Paxs	386.39	Joback Method
dvisc	0.0000010	Paxs	729.86	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=C28697532&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
cps:	Solid phase 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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