

# D-(+)-Arabitol, pentamethyl ether

<b>Other names:</b>	1,2,3,4,5-Penta-O-methyl-d-arabinitol
<b>Inchi:</b>	InChI=1S/C10H22O5/c1-11-6-8(13-3)10(15-5)9(14-4)7-12-2/h8-10H,6-7H2,1-5H3
<b>InchiKey:</b>	UKACKIRJWDAFEZ-UHFFFAOYSA-N
<b>Formula:</b>	C10H22O5
<b>SMILES:</b>	COCC(OC)C(OC)C(COC)OC
<b>Mol. weight [g/mol]:</b>	222.28

## Physical Properties

Property code	Value	Unit	Source
gf	-499.00	kJ/mol	Joback Method
hf	-926.67	kJ/mol	Joback Method
hfus	17.03	kJ/mol	Joback Method
hvap	48.74	kJ/mol	Joback Method
log10ws	0.22		Crippen Method
logp	0.324		Crippen Method
mcvol	181.110	ml/mol	McGowan Method
pc	1994.77	kPa	Joback Method
tb	538.98	K	Joback Method
tc	710.38	K	Joback Method
tf	268.61	K	Joback Method
vc	0.667	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	450.67	J/molxK	538.98	Joback Method
cpg	465.79	J/molxK	567.55	Joback Method
cpg	480.49	J/molxK	596.11	Joback Method
cpg	494.75	J/molxK	624.68	Joback Method
cpg	508.52	J/molxK	653.24	Joback Method
cpg	521.81	J/molxK	681.81	Joback Method
cpg	534.57	J/molxK	710.38	Joback Method
dvisc	0.0030159	Paxs	268.61	Joback Method
dvisc	0.0010482	Paxs	313.67	Joback Method

dvisc	0.0004751	Paxs	358.73	Joback Method
dvisc	0.0002570	Paxs	403.80	Joback Method
dvisc	0.0001572	Paxs	448.86	Joback Method
dvisc	0.0001052	Paxs	493.92	Joback Method
dvisc	0.0000753	Paxs	538.98	Joback Method

## Sources

<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
<b>Crippen Method:</b>	<a href="https://www.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U332891&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U332891&amp;Units=SI</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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