

«alpha», «beta»-Methyl-2-deoxy-D-ribofuranoside

Inchi:	InChI=1S/C6H12O4/c1-9-6-2-4(8)5(3-7)10-6/h4-8H,2-3H2,1H3
InchiKey:	NVGJZDFWPSOTHM-UHFFFAOYSA-N
Formula:	C6H12O4
SMILES:	COC1CC(O)C(CO)O1
Mol. weight [g/mol]:	148.16
CAS:	60134-26-1

Physical Properties

Property code	Value	Unit	Source
gf	-443.99	kJ/mol	Joback Method
hf	-716.05	kJ/mol	Joback Method
hfus	24.72	kJ/mol	Joback Method
hvap	68.87	kJ/mol	Joback Method
log10ws	0.24		Crippen Method
logp	-0.899		Crippen Method
mcvol	108.020	ml/mol	McGowan Method
pc	4316.89	kPa	Joback Method
tb	576.35	K	Joback Method
tc	753.62	K	Joback Method
tf	330.24	K	Joback Method
vc	0.388	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	294.49	J/molxK	576.35	Joback Method
cpg	342.03	J/molxK	724.07	Joback Method
cpg	333.42	J/molxK	694.53	Joback Method
cpg	324.36	J/molxK	664.98	Joback Method
cpg	314.85	J/molxK	635.44	Joback Method
cpg	304.90	J/molxK	605.89	Joback Method
cpg	350.20	J/molxK	753.62	Joback Method
dvisc	0.0000718	Paxs	576.35	Joback Method
dvisc	0.0001234	Paxs	535.33	Joback Method

dvisc	0.0002322	Paxs	494.31	Joback Method
dvisc	0.0004900	Paxs	453.30	Joback Method
dvisc	0.0011996	Paxs	412.28	Joback Method
dvisc	0.0035793	Paxs	371.26	Joback Method
dvisc	0.0140110	Paxs	330.24	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C60134261&Units=SI
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

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

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