«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/mol×K	576.35	Joback Method
cpg	342.03	J/mol×K	724.07	Joback Method
cpg	333.42	J/mol×K	694.53	Joback Method
cpg	324.36	J/mol×K	664.98	Joback Method
cpg	314.85	J/mol×K	635.44	Joback Method
cpg	304.90	J/mol×K	605.89	Joback Method
cpg	350.20	J/mol×K	753.62	Joback Method
dvisc	0.0000718	Pa×s	576.35	Joback Method
dvisc	0.0001234	Pa×s	535.33	Joback Method

dvisc	0.0002322	Pa×s	494.31	Joback Method
dvisc	0.0004900	Pa×s	453.30	Joback Method
dvisc	0.0011996	Pa×s	412.28	Joback Method
dvisc	0.0035793	Pa×s	371.26	Joback Method
dvisc	0.0140110	Pa×s	330.24	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=C60134261&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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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