

«alpha»-D-Xylofuranose, 1,2:3,5-bis-O-(1-methylethylidene)-

Other names:

Xylofuranose, 1,2:3,5-di-O-isopropylidene-, «alpha»-D-
1,2:3,5-di-O-Isopropylidene-D-xylofuranose

«alpha»-d-Xylofuranose, 1,2,3,5-bis-O-(1-methylethylidene)-

Inchi: InChI=1S/C11H18O5/c1-10(2)12-5-6-7(14-10)8-9(13-6)16-11(3,4)15-8/h6-9H,5H2,1-4H3

InchiKey: NKZDPBSWYPINNF-KZVJFYERSA-N

Formula: C11H18O5

SMILES: CC1(C)OCC2OC3OC(C)(C)OC3C2O1

Mol. weight [g/mol]: 230.26

CAS: 20881-04-3

Physical Properties

Property code	Value	Unit	Source
gf	-277.02	kJ/mol	Joback Method
hf	-760.99	kJ/mol	Joback Method
hfus	42.86	kJ/mol	Joback Method
hvap	59.66	kJ/mol	Joback Method
log10ws	-1.70		Crippen Method
logp	1.014		Crippen Method
mcvol	162.620	ml/mol	McGowan Method
pc	2881.21	kPa	Joback Method
tb	605.33	K	Joback Method
tc	839.84	K	Joback Method
tf	424.92	K	Joback Method
vc	0.597	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	489.91	J/mol×K	605.33	Joback Method
cpg	508.99	J/mol×K	644.42	Joback Method
cpg	526.89	J/mol×K	683.50	Joback Method
cpg	543.89	J/mol×K	722.59	Joback Method
cpg	560.28	J/mol×K	761.67	Joback Method
cpg	576.34	J/mol×K	800.76	Joback Method

cpg

592.36

J/mol×K

839.84

Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	376.20	K	0.30	NIST Webbook

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C20881043&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
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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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