«alpha»-D-Galactopyranose, 1,2:3,4-bis-O-(1-methylethylidene)-

Other names: Galactopyranose, 1,2:3,4-di-O-isopropylidene-, «alpha»-D-
Diisopropylidenegalactose
1,2:3,4-di-O-Isopropylidene-D-galactopyranose
1,2,3,4-di-O-Isopropylidene-D-galactopyranose
1,2,3,4-di-O-Isopropylidenegalactopyranose
Galactopyranose, 1,2:3,4-di-o-isopropylidene-, d-

Inchi: InChI=1S/C12H20O6/c1-11(2)15-7-6(5-13)14-10-9(8(7)16-11)17-12(3,4)18-10/h6-10,13H

InchiKey: POORJMIIHXHXAV-MBXMOIHESA-N

Formula: C12H20O6

SMILES: CC1(C)OC2OC(CO)C3OC(C)(C)OC3C2O1

Mol. weight [g/mol]: 260.28

CAS: 4064-06-6

Physical Properties

Property code	Value	Unit	Source
gf	-413.13	kJ/mol	Joback Method
hf	-954.20	kJ/mol	Joback Method
hfus	50.61	kJ/mol	Joback Method
hvap	78.25	kJ/mol	Joback Method
log10ws	-1.50		Crippen Method
logp	0.375		Crippen Method
mcvol	182.580	ml/mol	McGowan Method
pc	2770.08	kPa	Joback Method
tb	715.72	K	Joback Method
tc	928.65	K	Joback Method
tf	492.77	K	Joback Method
vc	0.670	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	607.20	J/mol×K	715.72	Joback Method
cpg	623.91	J/mol×K	751.21	Joback Method
cpg	640.18	J/mol×K	786.70	Joback Method

cpg	656.22	J/mol×K	822.19	Joback Method
cpg	672.24	J/mol×K	857.67	Joback Method
cpg	688.45	J/mol×K	893.16	Joback Method
cpg	705.06	J/mol×K	928.65	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=C4064066&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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