

Oxirane, 2,2'-[methylenebis(4,1-phenyleneoxymethylene)]b

Other names:

Bis[4-[(oxiran-2-yl)methoxy]phenyl]methane
Benzene, 1,1'-methylenebis[4-[(2-oxiranyl)methoxy]-
Bisphenol F diglycidyl ether, para-para'
2,2'-(Methylenebis(p-phenyleneoxymethylene))bisoxirane
Methane, bis[p-(2,3-epoxypropoxy)phenyl]-
4,4'-Methylenebisphenol diglycidyl ether
p,p-BFDGE
para-para-BFDGE

Inchi: InChI=1S/C19H20O4/c1-5-16(20-10-18-12-22-18)6-2-14(1)9-15-3-7-17(8-4-15)21-11-19-

InchiKey: XUCHXOAWJMEFLF-UHFFFAOYSA-N

Formula: C19H20O4

SMILES: c1cc(OCC2CO2)ccc1Cc1ccc(OCC2CO2)cc1

Mol. weight [g/mol]: 312.36

CAS: 2095-03-6

Physical Properties

Property code	Value	Unit	Source
gf	53.92	kJ/mol	Joback Method
hf	-368.21	kJ/mol	Joback Method
hfus	46.87	kJ/mol	Joback Method
hvap	77.43	kJ/mol	Joback Method
log10ws	-3.67		Crippen Method
logp	2.833		Crippen Method
mcvol	232.810	ml/mol	McGowan Method
pc	2062.36	kPa	Joback Method
rinpol	2704.00		NIST Webbook
tb	809.66	K	Joback Method
tc	1045.24	K	Joback Method
tf	515.25	K	Joback Method
vc	0.875	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
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cpg	721.89	J/molxK	809.66	Joback Method
cpg	738.50	J/molxK	848.92	Joback Method
cpg	753.89	J/molxK	888.19	Joback Method
cpg	768.16	J/molxK	927.45	Joback Method
cpg	781.42	J/molxK	966.71	Joback Method
cpg	793.77	J/molxK	1005.98	Joback Method
cpg	805.32	J/molxK	1045.24	Joback Method
dvisc	0.0016010	Paxs	515.25	Joback Method
dvisc	0.0011956	Paxs	564.32	Joback Method
dvisc	0.0009356	Paxs	613.39	Joback Method
dvisc	0.0007592	Paxs	662.45	Joback Method
dvisc	0.0006341	Paxs	711.52	Joback Method
dvisc	0.0005420	Paxs	760.59	Joback Method
dvisc	0.0004722	Paxs	809.66	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=C2095036&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume

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