

Ethylene glycol bis(alpha-methylbenzyl) ether

Inchi:	InChI=1S/C18H22O2/c1-15(17-9-5-3-6-10-17)19-13-14-20-16(2)18-11-7-4-8-12-18/h3-12
InchiKey:	RAZCHPFZG XKODY-UHFFFAOYSA-N
Formula:	C18H22O2
SMILES:	CC(OCCOC(C)c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	270.37
CAS:	78759-31-6

Physical Properties

Property code	Value	Unit	Source
gf	110.62	kJ/mol	Joback Method
hf	-216.79	kJ/mol	Joback Method
hfus	25.79	kJ/mol	Joback Method
hvap	64.26	kJ/mol	Joback Method
log10ws	-4.66		Crippen Method
logp	4.542		Crippen Method
mvol	228.700	ml/mol	McGowan Method
pc	1887.08	kPa	Joback Method
tb	708.56	K	Joback Method
tc	933.00	K	Joback Method
tf	359.92	K	Joback Method
vc	0.852	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	635.96	J/molxK	708.56	Joback Method
cpg	654.75	J/molxK	745.97	Joback Method
cpg	672.19	J/molxK	783.37	Joback Method
cpg	688.32	J/molxK	820.78	Joback Method
cpg	703.20	J/molxK	858.18	Joback Method
cpg	716.87	J/molxK	895.59	Joback Method
cpg	729.37	J/molxK	933.00	Joback Method
dvisc	0.0016844	Paxs	359.92	Joback Method
dvisc	0.0006687	Paxs	418.03	Joback Method

dvisc	0.0003326	Paxs	476.13	Joback Method
dvisc	0.0001926	Paxs	534.24	Joback Method
dvisc	0.0001241	Paxs	592.35	Joback Method
dvisc	0.0000865	Paxs	650.45	Joback Method
dvisc	0.0000640	Paxs	708.56	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.cheméo.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=C78759316&Units=SI

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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