

Butyl octadecyl ether

Inchi:	InChI=1S/C22H46O/c1-3-5-7-8-9-10-11-12-13-14-15-16-17-18-19-20-22-23-21-6-4-2/h3-
InchiKey:	FVEAPUWITOHBI-UHFFFAOYSA-N
Formula:	C22H46O
SMILES:	CCCCCCCCCCCCCCCCOCCCC
Mol. weight [g/mol]:	326.60

Physical Properties

Property code	Value	Unit	Source
gf	29.36	kJ/mol	Joback Method
hf	-629.63	kJ/mol	Joback Method
hfus	53.92	kJ/mol	Joback Method
hvap	66.98	kJ/mol	Joback Method
log10ws	-8.12		Crippen Method
logp	8.065		Crippen Method
mcvol	326.710	ml/mol	McGowan Method
pc	892.67	kPa	Joback Method
rinsol	2275.00		NIST Webbook
tb	725.18	K	Joback Method
tc	891.69	K	Joback Method
tf	359.93	K	Joback Method
vc	1.286	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	997.15	J/molxK	725.18	Joback Method
cpg	1018.84	J/molxK	752.93	Joback Method
cpg	1039.58	J/molxK	780.68	Joback Method
cpg	1059.40	J/molxK	808.43	Joback Method
cpg	1078.30	J/molxK	836.19	Joback Method
cpg	1096.33	J/molxK	863.94	Joback Method
cpg	1113.50	J/molxK	891.69	Joback Method
dvisc	0.0019109	Paxs	359.93	Joback Method
dvisc	0.0006985	Paxs	420.80	Joback Method

dvisc	0.0003293	Paxs	481.68	Joback Method
dvisc	0.0001837	Paxs	542.55	Joback Method
dvisc	0.0001153	Paxs	603.43	Joback Method
dvisc	0.0000789	Paxs	664.30	Joback Method
dvisc	0.0000575	Paxs	725.18	Joback Method

Sources

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=U406406&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
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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