2-Ethylbutyl ether

Other names: (2-Ethyl-1-butyl) ether
Inchi: InChI=1S/C12H26O/c1-5-11(6-2)9-13-10-12(7-3)8-4/h11-12H,5-10H2,1-4H3
InchiKey: YJBYJBXZLXFOCG-UHFFFAOYSA-N
Formula: C12H26O
SMILES: CCC(CC)COCC(CC)CC
Mol. weight [g/mol]: 186.33

Physical Properties

Property code	Value	Unit	Source
gf	-59.72	kJ/mol	Joback Method
hf	-433.79	kJ/mol	Joback Method
hfus	20.98	kJ/mol	Joback Method
hvap	43.94	kJ/mol	Joback Method
log10ws	-3.45		Crippen Method
logp	3.875		Crippen Method
mcvol	185.810	ml/mol	McGowan Method
pc	1778.84	kPa	Joback Method
rinpol	1157.00		NIST Webbook
tb	495.50	K	Joback Method
tc	662.80	K	Joback Method
tf	217.23	K	Joback Method
vc	0.714	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	435.91	J/mol×K	495.50	Joback Method
cpg	515.76	J/mol×K	634.92	Joback Method
cpg	501.01	J/mol×K	607.03	Joback Method
cpg	485.66	J/mol×K	579.15	Joback Method
cpg	469.70	J/mol×K	551.27	Joback Method
cpg	453.12	J/mol×K	523.38	Joback Method
cpg	529.91	J/mol×K	662.80	Joback Method
dvisc	0.0001584	Pa×s	495.50	Joback Method

dvisc	0.0002228	Pa×s	449.12	Joback Method
dvisc	0.0003391	Pa×s	402.74	Joback Method
dvisc	0.0005758	Pa×s	356.37	Joback Method
dvisc	0.0011454	Pa×s	309.99	Joback Method
dvisc	0.0029021	Pa×s	263.61	Joback Method
dvisc	0.0109368	Pa×s	217.23	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=R142615&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