

Ethyl octadecyl ether

Inchi:	InChI=1S/C20H42O/c1-3-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-4-2/h3-20H2,
InchiKey:	DGLWHXRTXWIDEE-UHFFFAOYSA-N
Formula:	C20H42O
SMILES:	CCCCCCCCCCCCCCCCCOCC
Mol. weight [g/mol]:	298.55

Physical Properties

Property code	Value	Unit	Source
gf	12.52	kJ/mol	Joback Method
hf	-588.35	kJ/mol	Joback Method
hfus	48.74	kJ/mol	Joback Method
hvap	62.52	kJ/mol	Joback Method
log10ws	-7.28		Crippen Method
logp	7.284		Crippen Method
mvol	298.530	ml/mol	McGowan Method
pc	1004.62	kPa	Joback Method
rinpol	2091.00		NIST Webbook
rinpol	2091.00		NIST Webbook
tb	679.42	K	Joback Method
tc	841.55	K	Joback Method
tf	337.39	K	Joback Method
vc	1.173	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	874.71	J/molxK	679.42	Joback Method
cpg	970.01	J/molxK	814.53	Joback Method
cpg	952.59	J/molxK	787.51	Joback Method
cpg	934.37	J/molxK	760.49	Joback Method
cpg	915.33	J/molxK	733.46	Joback Method
cpg	895.45	J/molxK	706.44	Joback Method
cpg	986.65	J/molxK	841.55	Joback Method
dvisc	0.0000748	Paxs	679.42	Joback Method

dvisc	0.0001022	Paxs	622.41	Joback Method
dvisc	0.0001487	Paxs	565.41	Joback Method
dvisc	0.0002354	Paxs	508.40	Joback Method
dvisc	0.0004185	Paxs	451.40	Joback Method
dvisc	0.0008784	Paxs	394.39	Joback Method
dvisc	0.0023688	Paxs	337.39	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U406365&Units=SI
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

Legend

cp_g:	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:	Log ₁₀ of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
m_{cvol}:	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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