Propanoic acid, 3-ethoxy-, ethyl ester

Other names:	3-Ethoxypropionic acid ethyl ester
	Ektapro EEP
	Ethoxypropionic acid, ethyl ester
	Ethyl 3-ethoxypropanoate
	Ethyl ester of 3-ethoxypropanoic acid
	Ethyl «beta»-ethoxypropionate
	Ethylester kyseliny 3-ethoxypropionove
	NSC 8870
	Propionic acid, 3-ethoxy-, ethyl ester
	ethyl .beta.-ethoxypropionate
	ethyl 3-ethoxypropionate
	ethyl 4-oxahexanoate
	«beta»-Ethoxypropionic acid ethyl ester
Inchi:	InChI=1S/C7H14O3/c1-3-9-6-5-7(8)10-4-2/h3-6H2,1-2H3
InchiKey:	BHXIWUJLHYHGSJ-UHFFFAOYSA-N
Formula:	C7H14O3
SMILES:	CCOCCC(=O)OCC
Mol. weight [g/mol]:	146.18
CAS:	763-69-9

Physical Properties

Property code	Value	Unit	Source
gf	-330.86	kJ/mol	Joback Method
hf	-564.83	kJ/mol	Joback Method
hfus	17.86	kJ/mol	Joback Method
hvap	42.74	kJ/mol	Joback Method
log10ws	-0.70		Crippen Method
logp	0.976		Crippen Method
mcvol	122.800	ml/mol	McGowan Method
pc	2660.00 ± 20.00	kPa	NIST Webbook
rhoc	318.68 ± 5.85	kg/m3	NIST Webbook
rinpol	970.70		NIST Webbook
rinpol	970.70		NIST Webbook
ripol	1351.00		NIST Webbook
ripol	1332.00		NIST Webbook
ripol	1320.00		NIST Webbook
ripol	1332.00		NIST Webbook

tb	458.27	K	Joback Method
tc	618.70 ± 2.00	K	NIST Webbook
tc	621.00 ± 1.00	K	NIST Webbook
tf	263.04	K	Joback Method
vc	0.469	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	261.73	J/mol×K	458.27	Joback Method
cpg	272.68	J/mol×K	487.61	Joback Method
cpg	283.31	J/mol×K	516.94	Joback Method
cpg	293.62	J/mol×K	546.28	Joback Method
cpg	303.59	J/mol×K	575.61	Joback Method
cpg	313.23	J/mol×K	604.95	Joback Method
cpg	322.52	J/mol×K	634.29	Joback Method
dvisc	0.0011760	Pa×s	298.15	Density and Viscosity for Ethyl 3-Ethoxypropionate + Methacrylic Acid, + Benzyl Methacrylate, and + 2-Hydroxyethyl Methacrylate
dvisc	0.0009960	Pa×s	308.15	Density and Viscosity for Ethyl 3-Ethoxypropionate + Methacrylic Acid, + Benzyl Methacrylate, and + 2-Hydroxyethyl Methacrylate
dvisc	0.0008590	Pa×s	318.15	Density and Viscosity for Ethyl 3-Ethoxypropionate + Methacrylic Acid, + Benzyl Methacrylate, and + 2-Hydroxyethyl Methacrylate
hvapt	45.50	kJ/mol	379.00	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C763699&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Density and Viscosity for Ethyl 3-Ethoxypropionate + Methacrylic Acid, + Benzyl Methacrylate, and + 2-Hydroxyethyl Methacrylate:	https://www.doi.org/10.1021/je050223a
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rhoc:	Critical density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume