2-Ethoxyethyl acetate

Other names:

''cellosolve'' Acetate
1-Acetoxy-2-ethoxyethane
2-Aethoxy-aethylacetat
2-Ethoxy etheracetate
2-Ethoxy-ethylacetaat
2-Ethoxyethanol acetate
2-Ethoxyethanol, ester with acetic acid
2-Ethoxyethyl ester of acetic acid
2-Ethoxyethyle, acetate de
2-Ethoxyethylester kyseliny octove
2-Etossietil-acetato
2-ethoxyethyl ethanoate
2EEA
Acetate d'ethylglycol
Acetate de cellosolve
Acetate de l'ether monoethylique de l'ethylene-glycol
Acetato di cellosolve
Acetic acid, 2-ethoxyethyl ester
Aethylenglykolaetheracetat
CSAC
Cellosolve acetate
Cellosove acetate
Celosolvacetat
EE acetate
EEA
Ektasolve EE acetate solvent
Ethanol, 2-ethoxy-, acetate
Ethoxy acetate
Ethoxyethanol acetate
Ethoxyethyl acetate
Ethyl acetyl glycolate
Ethyl cellosolve acetaat
Ethyl cellosolve acetate
Ethyl glycol acetate
Ethylene glycol ethyl ether acetate
Ethylene glycol monethyl ether acetate
Ethylene glycol monoethyl ether acetate
Ethylene glycol monoethyl ether monoacetate
Ethylglykolacetat
Glycol ether EE acetate

	Glycol monoethyl ether acetate
	NSC 8658
	Octan etoksyetylu
	Oxitol acetate
	Oxytol acetate
	Poly-Solv EE acetate
	Sensolve EEA
	UN 1172
	«beta»-Ethoxyethyl acetate
	Â«betaÂ»-Ethoxyethyl acetate
Inchi:	InChI=1S/C6H12O3/c1-3-8-4-5-9-6(2)7/h3-5H2,1-2H3
InchiKey:	SVONRAPFKPVNKG-UHFFFAOYSA-N
Formula:	C6H12O3
SMILES:	CCOCCOC(C)=O
Mol. weight [g/mol]:	132.16
CAS:	111-15-9

Physical Properties

Property code	Value	Unit	Source
gf	-339.28	kJ/mol	Joback Method
hf	-544.19	kJ/mol	Joback Method
hfus	15.27	kJ/mol	Joback Method
hvap	52.69 ± 0.02	kJ/mol	NIST Webbook
hvap	52.70 ± 0.10	kJ/mol	NIST Webbook
hvap	52.60 ± 0.40	kJ/mol	NIST Webbook
log10ws	-0.28		Crippen Method
logp	0.586		Crippen Method
mcvol	108.710	ml/mol	McGowan Method
pc	3180.00 ± 150.00	kPa	NIST Webbook
pc	3166.00 ± 40.00	kPa	NIST Webbook
rhoc	297.35 ± 6.61	kg/m3	NIST Webbook
rhoc	300.00 ± 12.03	kg/m3	NIST Webbook
rinpol	859.00		NIST Webbook
rinpol	876.00		NIST Webbook
rinpol	876.00		NIST Webbook
rinpol	875.00		NIST Webbook
rinpol	888.00		NIST Webbook
rinpol	880.80		NIST Webbook
rinpol	880.80		NIST Webbook
rinpol	909.40		NIST Webbook

rinpol	872.00		NIST Webbook
rinpol	874.00		NIST Webbook
rinpol	876.00		NIST Webbook
rinpol	852.00		NIST Webbook
rinpol	882.00		NIST Webbook
ripol	1318.00		NIST Webbook
ripol	1299.00		NIST Webbook
ripol	1299.00		NIST Webbook
ripol	1299.00		NIST Webbook
ripol	1290.00		NIST Webbook
ripol	1305.00		NIST Webbook
ripol	1319.00		NIST Webbook
tb	428.80	K	Vapor Liquid Equilibrium for the 2-Ethoxyethanol 2-Ethoxyethyl Acetate System
tb	429.45	K	NIST Webbook
tb	429.30 ± 0.30	K	NIST Webbook
tb	429.60	K	NIST Webbook
tc	607.30 ± 0.80	K	NIST Webbook
tc	608.70 ± 0.60	K	NIST Webbook
tc	610.60 ± 1.50	K	NIST Webbook
tf	211.45	K	NIST Webbook
vc	0.413	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	221.86	J/mol×K	435.39	Joback Method
cpg	241.01	J/mol×K	494.52	Joback Method
cpg	250.20	J/mol×K	524.08	Joback Method
cpg	259.12	J/mol×K	553.64	Joback Method
cpg	267.77	J/mol×K	583.20	Joback Method
cpg	276.12	J/mol×K	612.77	Joback Method
cpg	231.56	J/mol×K	464.95	Joback Method
cpl	376.00	J/mol×K	298.15	NIST Webbook
dvisc	0.0013093	Pa×s	282.37	Joback Method
dvisc	0.0008159	Pa×s	312.98	Joback Method
dvisc	0.0005532	Pa×s	343.58	Joback Method
dvisc	0.0003996	Pa×s	374.18	Joback Method
dvisc	0.0003033	Pa×s	404.79	Joback Method
dvisc	0.0023571	Pa×s	251.77	Joback Method

dvisc	0.0002392	Pa×s	435.39	Joback Method
hvapt	50.90	kJ/mol	376.00	NIST Webbook
pvap	80.00	kPa	421.50	Vapor Liquid Equilibrium for the 2-Ethoxyethanol 2-Ethoxyethyl Acetate System
pvap	100.93	kPa	429.70	Vapor Liquid Equilibrium for the 2-Ethoxyethanol 2-Ethoxyethyl Acetate System
pvap	100.93	kPa	428.80	Vapor Liquid Equilibrium for the 2-Ethoxyethanol 2-Ethoxyethyl Acetate System
pvap	101.33	kPa	428.80	Vapor Liquid Equilibrium for the 2-Ethoxyethanol 2-Ethoxyethyl Acetate System
pvap	90.66	kPa	425.80	Vapor Liquid Equilibrium for the 2-Ethoxyethanol 2-Ethoxyethyl Acetate System
pvap	85.33	kPa	423.70	Vapor Liquid Equilibrium for the 2-Ethoxyethanol 2-Ethoxyethyl Acetate System
pvap	93.30	kPa	427.80	Estimation of Activity Coefficients for the Pairs of the System 2-Ethoxyethanol + 2-Ethoxyethyl Acetate + 2-Butoxyethanol + 2-Butoxyethyl Acetate
pvap	69.33	kPa	416.70	Vapor Liquid Equilibrium for the 2-Ethoxyethanol 2-Ethoxyethyl Acetate System
pvap	53.33	kPa	408.20	Vapor Liquid Equilibrium for the 2-Ethoxyethanol 2-Ethoxyethyl Acetate System

pvap	93.30	kPa	428.60	Estimation of Activity Coefficients for the Pairs of the System 2-Ethoxyethanol + 2-Ethoxyethyl Acetate + 2-Butoxyethanol + 2-Butoxyethyl Acetate
pvap	93.70	kPa	428.30	Estimation of Activity Coefficients for the Pairs of the System 2-Ethoxyethanol + 2-Ethoxyethyl Acetate + 2-Butoxyethanol + 2-Butoxyethyl Acetate
rfi	1.40311		298.15	Excess molar volumes and excess molar enthalpies of binary mixtures for 1,2-dichloropropane + 2-alkoxyethanol acetates at 298.15K
srf	0.03	N/m	298.15	Concentration Dependence of Surface Tension for Very Dilute Aqueous Solutions of Organic Non-Electrolytes

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.46408e+01
Coeff. B	-3.40251e+03
Coeff. C	-9.02510e+01
Temperature range (K), min.	327.31
Temperature range (K), max.	454.96

Sources

Vapor Liquid Equilibrium for the 2-Ethoxyethanol 2-Ethoxyethyl Acetate System:	https://www.doi.org/10.1021/je300202z
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Estimation of Activity Coefficients for the Pairs of the System 2-Ethoxyethanol + 2-Ethoxyethyl Acetate + 2-Butoxyethanol + 2-Butoxyethyl Acetate at 298.15K:	https://www.doi.org/10.1021/je200565u
Excess molar volumes and excess molar enthalpies of binary mixtures for 2-ethoxyethanol + 2-ethoxyethyl acetate + 2-butoxyethanol + 2-butoxyethyl acetate at 298.15K:	https://www.doi.org/10.1016/j.tca.2008.02.008
Concentration Dependence of Surface Tension for Very Dilute Aqueous Solutions:	https://www.doi.org/10.1021/je049955d
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C111159&Units=SI

Legend

cpg:	Ideal gas heat capacity
cpl:	Liquid phase 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
pvap:	Vapor pressure
rfi:	Refractive Index
rhoc:	Critical density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
srf:	Surface Tension
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume