2-Propenoic acid, 2-methyl-, 2-propenyl ester

Other names:	2-Methyl-2-propenyl 2-propenoate
	2-Propenoic acid, 2-methyl-, 2-propen-1-yl ester
	2-methylpropenoic acid, allyl ester
	2-propenyl 2-methylpropenoate
	AGEFLEX AMA
	Allyl 2-methylacrylate
	Allyl ester of methacrylic acid
	Allyl methacrylate
	Allylester kyseliny methakrylove
	Methacrylic acid, allyl ester
	NSC 18597
	allyl 2-methylpropenoate
Inchi:	InChI=1S/C7H10O2/c1-4-5-9-7(8)6(2)3/h4H,1-2,5H2,3H3
InchiKey:	FBCQUCJYYPMKRO-UHFFFAOYSA-N
Formula:	C7H10O2
SMILES:	C=CCOC(=O)C(=C)C
Mol. weight [g/mol]:	126.15
CAS:	96-05-9

Physical Properties

Property code	Value	Unit	Source
gf	-58.73	kJ/mol	Joback Method
hf	-191.54	kJ/mol	Joback Method
hfus	12.80	kJ/mol	Joback Method
hvap	39.07	kJ/mol	Joback Method
log10ws	-1.32		Crippen Method
logp	1.292		Crippen Method
mcvol	108.330	ml/mol	McGowan Method
pc	3246.73	kPa	Joback Method
rinpol	849.00		NIST Webbook
ripol	1188.00		NIST Webbook
tb	429.09	K	Joback Method
tc	616.46	K	Joback Method
tf	223.33	K	Joback Method
vc	0.414	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	207.19	J/mol×K	429.09	Joback Method
cpg	217.16	J/mol×K	460.32	Joback Method
cpg	226.71	J/mol×K	491.55	Joback Method
cpg	235.86	J/mol×K	522.78	Joback Method
cpg	244.60	J/mol×K	554.01	Joback Method
cpg	252.95	J/mol×K	585.24	Joback Method
cpg	260.92	J/mol×K	616.46	Joback Method
rhol	928.00	kg/m3	298.15	Densities and derived thermodynamic properties of the binary systems of 1,1-dimethylethyl methyl ether with allyl methacrylate, butyl methacrylate, methacrylic acid, and vinyl acetate at T = (298.15 and 308.15) K
rhol	917.42	kg/m3	308.15	Densities and derived thermodynamic properties of the binary systems of 1,1-dimethylethyl methyl ether with allyl methacrylate, butyl methacrylate, methacrylic acid, and vinyl acetate at T = (298.15 and 308.15) K
rhol	932.97	kg/m3	293.15	Density, excess volume, and excess coefficient of thermal expansion of the binary systems of dimethyl carbonate with butyl methacrylate, allyl methacrylate, styrene, and vinyl acetate at T = (293.15, 303.15, and 313.15) K

rhol	922.52	kg/m3	303.15	Density, excess volume, and excess coefficient of thermal expansion of the binary systems of dimethyl carbonate with butyl methacrylate, allyl methacrylate, styrene, and vinyl acetate at T = (293.15, 303.15, and 313.15) K	
rhol	912.07	kg/m3	313.15	Density, excess volume, and excess coefficient of thermal expansion of the binary systems of dimethyl carbonate with butyl methacrylate, allyl methacrylate, styrene, and vinyl acetate at T = (293.15, 303.15, and 313.15) K	
rhol	928.00	kg/m3	298.15	Densities, isobaric thermal compressibilities and derived thermodynamic properties of the binary systems of cyclohexane with allyl methacrylate, butyl methacrylate, methacrylic acid, and vinyl acetate at t = (298.15 and 308.15)K	

rhol	917.42	kg/m3	308.15	Densities, isobaric thermal compressibilities and derived thermodynamic properties of the binary systems of cyclohexane with allyl methacrylate, butyl methacrylate, methacrylic acid, and vinyl acetate at t = (298.15 and 308.15)K

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	333.20	K	5.70	NIST Webbook

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Densities, isobaric thermal compressibilities and derived thermodynamic properties of the binary systems of cyclohexane with allyl methacrylate, butyl methacrylate, methacrylic acid, and vinyl acetate at t = (298.15 and 308.15)K:	https://www.doi.org/10.1016/j.tca.2005.06.007
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
Densities and derived thermodynamic properties of the binary systems of methacrylic acid and vinyl acetate at t = (298.15 and 308.15)K:	https://www.doi.org/10.1016/j.jct.2004.11.012
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
KDB:	https://www.cheric.org/files/research/kdb/mol/mol1179.mol
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C96059&Units=SI
Density, excess volume, and excess coefficient of thermal expansion of the binary systems of dimethyl carbonate with butyl methacrylate, allyl methacrylate, styrene, and vinyl acetate at T = (293.15, 303.15, and 313.15) K:	https://www.doi.org/10.1016/j.jct.2008.06.017

Legend

cpg:	Ideal gas heat capacity
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
rhol:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume