

Acetic acid, 3-methylpentyl ester

Other names:	3-methylpentyl acetate
Inchi:	InChI=1S/C8H16O2/c1-4-7(2)5-6-10-8(3)9/h7H,4-6H2,1-3H3
InchiKey:	NFYJZIICTJCGOR-UHFFFAOYSA-N
Formula:	C8H16O2
SMILES:	CCC(C)CCOC(C)=O
Mol. weight [g/mol]:	144.21
CAS:	35897-13-3

Physical Properties

Property code	Value	Unit	Source
gf	-219.88	kJ/mol	Joback Method
hf	-458.53	kJ/mol	Joback Method
hfus	15.74	kJ/mol	Joback Method
hvap	42.17	kJ/mol	Joback Method
log10ws	-1.79		Crippen Method
logp	1.986		Crippen Method
mcvol	131.020	ml/mol	McGowan Method
pc	2679.08	kPa	Joback Method
rinpol	993.00		NIST Webbook
rinpol	980.20		NIST Webbook
rinpol	980.20		NIST Webbook
rinpol	993.00		NIST Webbook
tb	458.29	K	Joback Method
tc	637.16	K	Joback Method
tf	237.08	K	Joback Method
vc	0.501	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	279.83	J/mol×K	458.29	Joback Method
cpg	338.23	J/mol×K	607.34	Joback Method
cpg	327.44	J/mol×K	577.53	Joback Method
cpg	316.22	J/mol×K	547.72	Joback Method

cpg	304.54	J/mol×K	517.91	Joback Method
cpg	292.41	J/mol×K	488.10	Joback Method
cpg	348.57	J/mol×K	637.16	Joback Method
dvisc	0.0002420	Pa×s	458.29	Joback Method
dvisc	0.0003204	Pa×s	421.42	Joback Method
dvisc	0.0004476	Pa×s	384.55	Joback Method
dvisc	0.0006713	Pa×s	347.69	Joback Method
dvisc	0.0011084	Pa×s	310.82	Joback Method
dvisc	0.0020946	Pa×s	273.95	Joback Method
dvisc	0.0048246	Pa×s	237.08	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.51982e+01
Coeff. B	-3.95841e+03
Coeff. C	-6.18440e+01
Temperature range (K), min.	327.32
Temperature range (K), max.	462.22

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C35897133&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
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
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpola:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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