

1-Ethylpentyl acetate

Other names:	3-Heptanol, acetate 3-heptyl acetate Acetic acid, hept-3-yl ester heptan-3-yl acetate
Inchi:	InChI=1S/C9H18O2/c1-4-6-7-9(5-2)11-8(3)10/h9H,4-7H2,1-3H3
InchiKey:	QICIMADZMWGDTQ-UHFFFAOYSA-N
Formula:	C9H18O2
SMILES:	CCCCC(CC)OC(C)=O
Mol. weight [g/mol]:	158.24
CAS:	5921-83-5

Physical Properties

Property code	Value	Unit	Source
gf	-211.46	kJ/mol	Joback Method
hf	-479.17	kJ/mol	Joback Method
hfus	18.33	kJ/mol	Joback Method
hvap	44.40	kJ/mol	Joback Method
log10ws	-2.56		Crippen Method
logp	2.518		Crippen Method
mcvol	145.110	ml/mol	McGowan Method
pc	2431.44	kPa	Joback Method
rinpol	1040.00		NIST Webbook
tb	481.17	K	Joback Method
tc	658.49	K	Joback Method
tf	248.35	K	Joback Method
vc	0.557	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	323.06	J/mol×K	481.17	Joback Method
cpg	386.04	J/mol×K	628.93	Joback Method
cpg	374.44	J/mol×K	599.38	Joback Method
cpg	362.35	J/mol×K	569.83	Joback Method

cpg	349.76	J/mol×K	540.28	Joback Method
cpg	336.66	J/mol×K	510.72	Joback Method
cpg	397.15	J/mol×K	658.49	Joback Method
dvisc	0.0002272	Pa×s	481.17	Joback Method
dvisc	0.0003022	Pa×s	442.37	Joback Method
dvisc	0.0004246	Pa×s	403.56	Joback Method
dvisc	0.0006412	Pa×s	364.76	Joback Method
dvisc	0.0010682	Pa×s	325.96	Joback Method
dvisc	0.0020429	Pa×s	287.15	Joback Method
dvisc	0.0047844	Pa×s	248.35	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.55665e+01
Coeff. B	-4.24760e+03
Coeff. C	-6.85160e+01
Temperature range (K), min.	346.52
Temperature range (K), max.	482.71

Sources

The Yaws Handbook of Vapor Pressure:
Crippen Method:

<https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure>
<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

McGowan Method:

<http://link.springer.com/article/10.1007/BF02311772>

NIST Webbook:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C5921835&Units=SI>

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
hvac:	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
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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