Heptane, 3-[(ethenyloxy)methyl]-

Other names:	(2-Ethyl-1-hexyl) vinyl ether
	1-Ethenoxy-2-ethylhexane
	2-Ethylhexyl vinyl ether
	Ether, 2-ethylhexyl vinyl
	Rapi-cure EHVE
	Vinyl 2-ethylhexyl ether
Inchi:	InChI=1S/C10H20O/c1-4-7-8-10(5-2)9-11-6-3/h6,10H,3-5,7-9H2,1-2H3
InchiKey:	DSSAWHFZNWVJEC-UHFFFAOYSA-N
Formula:	C10H20O
SMILES:	C=COCC(CC)CCCC
Mol. weight [g/mol]:	156.27
CAS:	103-44-6

Physical Properties

Property code	Value	Unit	Source
gf	13.72	kJ/mol	Joback Method
hf	-261.80	kJ/mol	Joback Method
hfus	18.04	kJ/mol	Joback Method
hvap	39.21	kJ/mol	Joback Method
log10ws	-3.20		Crippen Method
logp	3.363		Crippen Method
mcvol	153.330	ml/mol	McGowan Method
pc	2173.43	kPa	Joback Method
rinpol	1026.00		NIST Webbook
rinpol	1038.00		NIST Webbook
rinpol	1036.00		NIST Webbook
rinpol	1011.00		NIST Webbook
ripol	1179.00		NIST Webbook
ripol	1165.00		NIST Webbook
ripol	1168.00		NIST Webbook
tb	446.86	K	Joback Method
tc	616.05	K	Joback Method
tf	207.93	K	Joback Method
vc	0.589	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	325.63	J/mol×K	446.86	Joback Method
cpg	340.29	J/mol×K	475.06	Joback Method
cpg	354.41	J/mol×K	503.26	Joback Method
cpg	368.01	J/mol×K	531.46	Joback Method
cpg	381.10	J/mol×K	559.65	Joback Method
cpg	393.67	J/mol×K	587.85	Joback Method
cpg	405.76	J/mol×K	616.05	Joback Method
dvisc	0.0061809	Pa×s	207.93	Joback Method
dvisc	0.0021823	Pa×s	247.75	Joback Method
dvisc	0.0010280	Pa×s	287.57	Joback Method
dvisc	0.0005816	Pa×s	327.39	Joback Method
dvisc	0.0003723	Pa×s	367.22	Joback Method
dvisc	0.0002600	Pa×s	407.04	Joback Method
dvisc	0.0001936	Pa×s	446.86	Joback Method
hvapt	44.70	kJ/mol	390.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.72878e+01
Coeff. B	-4.92691e+03
Coeff. C	-7.48050e+01
Temperature range (K), min.	364.62
Temperature range (K), max.	486.19

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C103446&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
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
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