5-Ethylcyclopent-1-enecarboxaldehyde

Other names:	1-Formyl-5-ethylcyclopentene
	5-Ethyl-1-formylcyclopentene
	5-Ethylcyclopentene-1-carbaldehyde
	Cyclopentene-1-carboxaldehyde, 5-ethyl
	5-Ethyl-1-cyclopentene-1-carbaldehyde
	(5-Ethylcyclopent-1-enyl)-methanal
	Cyclopentene-1-carboxaldehyde, 5-methyl
	5-Ethyl-1-cyclopentene-1-carboxaldehyde
Inchi:	InChI=1S/C8H12O/c1-2-7-4-3-5-8(7)6-9/h5-7H,2-4H2,1H3
InchiKey:	BXRHTYIYAZHIHF-UHFFFAOYSA-N
Formula:	C8H12O
SMILES:	CCC1CCC=C1C=O
Mol. weight [g/mol]:	124.18
CAS:	36431-60-4

Physical Properties

Property code	Value	Unit	Source
gf	-26.16	kJ/mol	Joback Method
hf	-187.24	kJ/mol	Joback Method
hfus	13.53	kJ/mol	Joback Method
hvap	41.33	kJ/mol	Joback Method
log10ws	-1.96		Crippen Method
logp	1.932		Crippen Method
mcvol	109.990	ml/mol	McGowan Method
pc	3415.86	kPa	Joback Method
rinpol	1038.00		NIST Webbook
rinpol	1039.00		NIST Webbook
rinpol	1040.00		NIST Webbook
rinpol	1040.00		NIST Webbook
rinpol	1053.00		NIST Webbook
rinpol	1047.00		NIST Webbook
rinpol	1013.00		NIST Webbook
rinpol	1035.00		NIST Webbook
rinpol	1010.00		NIST Webbook
rinpol	1026.00		NIST Webbook
ripol	1404.00		NIST Webbook
ripol	1416.00		NIST Webbook

ripol	1428.00		NIST Webbook
ripol	1399.00		NIST Webbook
tb	450.52	K	Joback Method
tc	653.47	K	Joback Method
tf	246.10	K	Joback Method
vc	0.427	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	226.00	J/mol×K	450.52	Joback Method
cpg	239.46	J/mol×K	484.34	Joback Method
cpg	252.22	J/mol×K	518.17	Joback Method
cpg	264.30	J/mol×K	551.99	Joback Method
cpg	275.74	J/mol×K	585.82	Joback Method
cpg	286.54	J/mol×K	619.64	Joback Method
cpg	296.74	J/mol×K	653.47	Joback Method
dvisc	0.0024771	Pa×s	246.10	Joback Method
dvisc	0.0014963	Pa×s	280.17	Joback Method
dvisc	0.0010082	Pa×s	314.24	Joback Method
dvisc	0.0007339	Pa×s	348.31	Joback Method
dvisc	0.0005653	Pa×s	382.38	Joback Method
dvisc	0.0004545	Pa×s	416.45	Joback Method
dvisc	0.0003776	Pa×s	450.52	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C36431604&Units=SI

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

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

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
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