Ethylidenecyclooctane

Inchi: InChI=1S/C10H18/c1-2-10-8-6-4-3-5-7-9-10/h2H,3-9H2,1H3
InchiKey: WSOKCFIRHYCWJE-UHFFFAOYSA-N
Formula: C10H18
SMILES: CC=C1CCCCCCC1
Mol. weight [g/mol]: 138.25
CAS: 19780-51-9

Physical Properties

Property code	Value	Unit	Source
gf	86.74	kJ/mol	Joback Method
hf	-111.36	kJ/mol	Joback Method
hfus	8.54	kJ/mol	Joback Method
hvap	39.72	kJ/mol	Joback Method
log10ws	-3.76		Crippen Method
logp	3.677		Crippen Method
mcvol	136.600	ml/mol	McGowan Method
pc	2887.40	kPa	Joback Method
tb	467.60	K	Joback Method
tc	688.64	K	Joback Method
tf	217.40	K	Joback Method
vc	0.496	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	285.86	J/mol×K	467.60	Joback Method
cpg	306.12	J/mol×K	504.44	Joback Method
cpg	325.28	J/mol×K	541.28	Joback Method
cpg	343.38	J/mol×K	578.12	Joback Method
cpg	360.45	J/mol×K	614.96	Joback Method
cpg	376.50	J/mol×K	651.80	Joback Method
cpg	391.57	J/mol×K	688.64	Joback Method
dvisc	0.0185822	Pa×s	217.40	Joback Method
dvisc	0.0044204	Pa×s	259.10	Joback Method

dvisc	0.0015658	Pa×s	300.80	Joback Method
dvisc	0.0007141	Pa×s	342.50	Joback Method
dvisc	0.0003862	Pa×s	384.20	Joback Method
dvisc	0.0002356	Pa×s	425.90	Joback Method
dvisc	0.0001569	Pa×s	467.60	Joback Method

Sources

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=C19780519&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume