o-Ethylvinylbenzene

Other names: 1-Ethyl-2-vinylbenzene
2-Ethylstyrene
Inchi: InChI=1S/C10H12/c1-3-9-7-5-6-8-10(9)4-2/h3,5-8H,1,4H2,2H3
InchiKey: VTPNYMSKBPZSTF-UHFFFAOYSA-N
Formula: C10H12
SMILES: C=Cc1ccccc1CC
Mol. weight [g/mol]: 132.20
CAS: 7564-63-8

Physical Properties

Property code	Value	Unit	Source
gf	223.94	kJ/mol	Joback Method
hf	100.76	kJ/mol	Joback Method
hfus	14.03	kJ/mol	Joback Method
hvap	40.12	kJ/mol	Joback Method
log10ws	-3.10		Crippen Method
logp	2.892		Crippen Method
mcvol	123.700	ml/mol	McGowan Method
pc	3018.96	kPa	Joback Method
rinpol	1091.00		NIST Webbook
rinpol	1091.00		NIST Webbook
rinpol	1086.40		NIST Webbook
tb	456.54	K	Joback Method
tc	667.08	K	Joback Method
tf	197.55 ± 0.50	K	NIST Webbook
vc	0.469	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	313.43	J/mol×K	667.08	Joback Method
cpg	303.05	J/mol×K	631.99	Joback Method
cpg	292.01	J/mol×K	596.90	Joback Method
cpg	280.28	J/mol×K	561.81	Joback Method

cpg	267.82	J/mol×K	526.72	Joback Method
cpg	254.60	J/mol×K	491.63	Joback Method
cpg	240.59	J/mol×K	456.54	Joback Method
dvisc	0.0021934	Pa×s	239.64	Joback Method
dvisc	0.0002161	Pa×s	456.54	Joback Method
dvisc	0.0002693	Pa×s	420.39	Joback Method
dvisc	0.0003498	Pa×s	384.24	Joback Method
dvisc	0.0004798	Pa×s	348.09	Joback Method
dvisc	0.0007081	Pa×s	311.94	Joback Method
dvisc	0.0011572	Pa×s	275.79	Joback Method
hvapt	46.30	kJ/mol	388.00	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C7564638&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
KDB: https://www.cheric.org/files/research/kdb/mol/mol740.mol
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
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
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point

vc: Critical Volume