1-Naphthalenecarboxaldehyde, 2-ethoxy-

Other names: 1-Naphthaldehyde, 2-ethoxy-
2-Ethoxy-1-naphthaldehyde
2-ethoxynaphthalene-1-carbaldehyde
Inchi: InChI=1S/C13H12O2/c1-2-15-13-8-7-10-5-3-4-6-11(10)12(13)9-14/h3-9H,2H2,1H3
InchiKey: IMNKQTWVJHODOS-UHFFFAOYSA-N
Formula: C13H12O2
SMILES: CCOc1ccc2ccccc2c1C=O
Mol. weight [g/mol]: 200.23
CAS: 19523-57-0

Physical Properties

Property code	Value	Unit	Source
gf	53.86	kJ/mol	Joback Method
hf	-124.79	kJ/mol	Joback Method
hfus	23.19	kJ/mol	Joback Method
hvap	58.90	kJ/mol	Joback Method
log10ws	-4.06		Crippen Method
logp	3.051		Crippen Method
mcvol	158.250	ml/mol	McGowan Method
pc	2881.21	kPa	Joback Method
tb	623.54	K	Joback Method
tc	849.94	K	Joback Method
tf	384.66	K	Joback Method
vc	0.613	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	384.44	J/mol×K	623.54	Joback Method
cpg	397.88	J/mol×K	661.27	Joback Method
cpg	410.42	J/mol×K	699.01	Joback Method
cpg	422.12	J/mol×K	736.74	Joback Method
cpg	433.01	J/mol×K	774.47	Joback Method
cpg	443.14	J/mol×K	812.20	Joback Method

cpg	452.56	J/mol×K	849.94	Joback Method
dvisc	0.0013212	Pa×s	384.66	Joback Method
dvisc	0.0009204	Pa×s	424.47	Joback Method
dvisc	0.0006822	Pa×s	464.29	Joback Method
dvisc	0.0005301	Pa×s	504.10	Joback Method
dvisc	0.0004274	Pa×s	543.91	Joback Method
dvisc	0.0003549	Pa×s	583.73	Joback Method
dvisc	0.0003018	Pa×s	623.54	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=C19523570&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