«beta»-(1-Naphthyl)acrylic acid

Other names:	3-(1-Naphthyl)acrylic acid
	2-Propenoic acid, 3-(1-naphthalenyl)-
	1-Naphthaleneacrylic acid
Inchi:	InChI=1S/C13H10O2/c14-13(15)9-8-11-6-3-5-10-4-1-2-7-12(10)11/h1-9H,(H,14,15)/b9-8
InchiKey:	WPXMLUUYWNHQOR-CMDGGOBGSA-N
Formula:	C13H10O2
SMILES:	O=C(O)C=Cc1cccc2ccccc12
Mol. weight [g/mol]:	198.22
CAS:	13026-12-5

Physical Properties

Property code	Value	Unit	Source
gf	82.49	kJ/mol	Joback Method
hf	-43.11	kJ/mol	Joback Method
hfus	25.99	kJ/mol	Joback Method
hvap	72.49	kJ/mol	Joback Method
log10ws	-3.62		Crippen Method
logp	2.938		Crippen Method
mcvol	153.950	ml/mol	McGowan Method
pc	3468.36	kPa	Joback Method
tb	697.69	K	Joback Method
tc	921.50	K	Joback Method
tf	413.58	K	Joback Method
vc	0.583	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	386.37	J/mol×K	697.69	Joback Method
cpg	432.33	J/mol×K	884.20	Joback Method
cpg	424.34	J/mol×K	846.90	Joback Method
cpg	415.83	J/mol×K	809.60	Joback Method
cpg	406.73	J/mol×K	772.29	Joback Method
cpg	396.93	J/mol×K	734.99	Joback Method

cpg	439.89	J/mol×K	921.50	Joback Method
dvisc	0.0000786	Pa×s	697.69	Joback Method
dvisc	0.0001094	Pa×s	650.34	Joback Method
dvisc	0.0001602	Pa×s	602.99	Joback Method
dvisc	0.0002504	Pa×s	555.63	Joback Method
dvisc	0.0004254	Pa×s	508.28	Joback Method
dvisc	0.0008060	Pa×s	460.93	Joback Method
dvisc	0.0017674	Pa×s	413.58	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=C13026125&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

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