

Nonyl acrylate

Inchi:	InChI=1S/C12H22O2/c1-3-5-6-7-8-9-10-11-14-12(13)4-2/h4H,2-3,5-11H2,1H3
InchiKey:	MDYPDLBFDATSCF-UHFFFAOYSA-N
Formula:	C12H22O2
SMILES:	C=CC(=O)OCCCCCCCCC
Mol. weight [g/mol]:	198.30
CAS:	2664-55-3

Physical Properties

Property code	Value	Unit	Source
gf	-95.92	kJ/mol	Joback Method
hf	-410.38	kJ/mol	Joback Method
hfus	28.34	kJ/mol	Joback Method
hvap	50.79	kJ/mol	Joback Method
log10ws	-3.56		Crippen Method
logp	3.466		Crippen Method
mcvol	183.080	ml/mol	McGowan Method
pc	1920.30	kPa	Joback Method
rinpol	1373.00		NIST Webbook
rinpol	1374.00		NIST Webbook
ripol	1689.00		NIST Webbook
ripol	1695.00		NIST Webbook
tb	546.93	K	Joback Method
tc	719.58	K	Joback Method
tf	236.50 ± 0.10	K	NIST Webbook
tf	236.50	K	NIST Webbook
vc	0.713	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	514.06	J/mol×K	690.81	Joback Method
cpg	487.98	J/mol×K	633.26	Joback Method
cpg	474.05	J/mol×K	604.48	Joback Method
cpg	459.51	J/mol×K	575.71	Joback Method

cpg	444.34	J/mol×K	546.93	Joback Method
cpg	501.31	J/mol×K	662.03	Joback Method
cpg	526.24	J/mol×K	719.58	Joback Method
cpl	417.90	J/mol×K	298.15	NIST Webbook
dvisc	0.0029144	Pa×s	295.40	Joback Method
dvisc	0.0001931	Pa×s	546.93	Joback Method
dvisc	0.0002516	Pa×s	505.01	Joback Method
dvisc	0.0003439	Pa×s	463.09	Joback Method
dvisc	0.0005002	Pa×s	421.17	Joback Method
dvisc	0.0007904	Pa×s	379.24	Joback Method
dvisc	0.0013996	Pa×s	337.32	Joback Method
hfust	23.36	kJ/mol	236.50	NIST Webbook
hfust	23.36	kJ/mol	236.50	NIST Webbook
hfust	23.36	kJ/mol	236.50	NIST Webbook
sfust	98.80	J/mol×K	236.50	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2664553&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

Legend

cpg:	Ideal gas heat capacity
cpl:	Liquid phase 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
hfust:	Enthalpy of fusion at a given temperature
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
sfust:	Entropy of fusion at a given temperature
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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