

8-Heptadecenoic acid

Other names:	Heptadecene-(8)-carbonic acid-(1)
Inchi:	InChI=1S/C17H32O2/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17(18)19/h9-10H,2-8,11-
InchiKey:	ZBIGLIMGCLJKHN-MDZDMXLPSA-N
Formula:	C17H32O2
SMILES:	CCCCCCCCC=CCCCCCCC(=O)O
Mol. weight [g/mol]:	268.43
CAS:	---

Physical Properties

Property code	Value	Unit	Source
gf	-93.26	kJ/mol	Joback Method
hf	-541.80	kJ/mol	Joback Method
hfus	45.68	kJ/mol	Joback Method
hvap	76.82	kJ/mol	Joback Method
log10ws	-5.89		Crippen Method
logp	5.718		Crippen Method
mcvol	253.530	ml/mol	McGowan Method
pc	1431.55	kPa	Joback Method
rinpol	2140.00		NIST Webbook
rinpol	2140.00		NIST Webbook
tb	738.57	K	Joback Method
tc	912.25	K	Joback Method
tf	387.02	K	Joback Method
vc	0.993	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	753.53	J/molxK	738.57	Joback Method
cpg	826.18	J/molxK	883.30	Joback Method
cpg	813.00	J/molxK	854.36	Joback Method
cpg	799.18	J/molxK	825.41	Joback Method
cpg	784.69	J/molxK	796.46	Joback Method
cpg	769.49	J/molxK	767.52	Joback Method

cpg	838.74	J/molxK	912.25	Joback Method
dvisc	0.0000252	Paxs	738.57	Joback Method
dvisc	0.0000395	Paxs	679.98	Joback Method
dvisc	0.0000674	Paxs	621.39	Joback Method
dvisc	0.0001285	Paxs	562.79	Joback Method
dvisc	0.0002846	Paxs	504.20	Joback Method
dvisc	0.0007775	Paxs	445.61	Joback Method
dvisc	0.0028789	Paxs	387.02	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.48479e+01
Coeff. B	-5.50963e+03
Coeff. C	-1.20919e+02
Temperature range (K), min.	499.32
Temperature range (K), max.	698.67

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R69621&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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
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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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