

2-Hydroxyhexadecanoic acid

Other names:	2-Hydroxypalmitic acid «alpha»-Hydroxypalmitic acid Hexadecanoic acid, 2-hydroxy-
Inchi:	InChI=1S/C16H32O3/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15(17)16(18)19/h15,17H,2-14H
InchiKey:	JGHSBPIZNUXPLA-UHFFFAOYSA-N
Formula:	C16H32O3
SMILES:	CCCCCCCCCCCCCCCC(O)C(=O)O
Mol. weight [g/mol]:	272.42
CAS:	764-67-0

Physical Properties

Property code	Value	Unit	Source
gf	-321.16	kJ/mol	Joback Method
hf	-795.89	kJ/mol	Joback Method
hfus	43.45	kJ/mol	Joback Method
hvap	90.93	kJ/mol	Joback Method
log10ws	-4.99		Crippen Method
logp	4.523		Crippen Method
mcvol	249.610	ml/mol	McGowan Method
pc	1601.28	kPa	Joback Method
tb	803.27	K	Joback Method
tc	983.91	K	Joback Method
tf	426.65	K	Joback Method
vc	0.970	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	788.11	J/mol×K	803.27	Joback Method
cpg	802.87	J/mol×K	833.38	Joback Method
cpg	816.88	J/mol×K	863.48	Joback Method
cpg	830.15	J/mol×K	893.59	Joback Method
cpg	842.72	J/mol×K	923.70	Joback Method
cpg	854.63	J/mol×K	953.81	Joback Method

cpg	865.91	J/mol×K	983.91	Joback Method
dvisc	0.0020451	Pa×s	426.65	Joback Method
dvisc	0.0003868	Pa×s	489.42	Joback Method
dvisc	0.0001068	Pa×s	552.19	Joback Method
dvisc	0.0000384	Pa×s	614.96	Joback Method
dvisc	0.0000167	Pa×s	677.73	Joback Method
dvisc	0.0000083	Pa×s	740.50	Joback Method
dvisc	0.0000046	Pa×s	803.27	Joback Method
hsubt	121.00	kJ/mol	302.50	NIST Webbook

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=C764670&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
hsubt:	Enthalpy of sublimation 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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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