

# Decanoic acid, 2-hydroxy-

<b>Other names:</b>	«alpha»-Hydroxydecanoic acid 2-Hydroxydecanoic acid
<b>Inchi:</b>	InChI=1S/C10H20O3/c1-2-3-4-5-6-7-8-9(11)10(12)13/h9,11H,2-8H2,1H3,(H,12,13)
<b>InchiKey:</b>	GHPVDCPCKSNJDR-UHFFFAOYSA-N
<b>Formula:</b>	C10H20O3
<b>SMILES:</b>	CCCCCCCCC(O)C(=O)O
<b>Mol. weight [g/mol]:</b>	188.26
<b>CAS:</b>	5393-81-7

## Physical Properties

Property code	Value	Unit	Source
gf	-371.68	kJ/mol	Joback Method
hf	-672.05	kJ/mol	Joback Method
hfus	27.91	kJ/mol	Joback Method
hvap	77.57	kJ/mol	Joback Method
log10ws	-2.48		Crippen Method
logp	2.183		Crippen Method
mvol	165.070	ml/mol	McGowan Method
pc	2704.22	kPa	Joback Method
rinpol	1557.00		NIST Webbook
tb	665.99	K	Joback Method
tc	833.55	K	Joback Method
tf	359.03	K	Joback Method
vc	0.633	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	459.85	J/molxK	665.99	Joback Method
cpg	510.05	J/molxK	805.62	Joback Method
cpg	500.95	J/molxK	777.69	Joback Method
cpg	491.39	J/molxK	749.77	Joback Method
cpg	481.37	J/molxK	721.84	Joback Method
cpg	470.86	J/molxK	693.92	Joback Method

cpg	518.72	J/molxK	833.55	Joback Method
dvisc	0.0000188	Paxs	665.99	Joback Method
dvisc	0.0000350	Paxs	614.83	Joback Method
dvisc	0.0000729	Paxs	563.67	Joback Method
dvisc	0.0001759	Paxs	512.51	Joback Method
dvisc	0.0005162	Paxs	461.35	Joback Method
dvisc	0.0019812	Paxs	410.19	Joback Method
dvisc	0.0111567	Paxs	359.03	Joback Method

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C5393817&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C5393817&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>

## Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>dvisc:</b>	Dynamic viscosity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>rinpol:</b>	Non-polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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