

Dodecanoic acid, 2-hydroxy-

Other names:	2-hydroxydodecanoic acid
Inchi:	InChI=1S/C12H24O3/c1-2-3-4-5-6-7-8-9-10-11(13)12(14)15/h11,13H,2-10H2,1H3,(H,14,
InchiKey:	YDZIJQXINJLRLL-UHFFFAOYSA-N
Formula:	C12H24O3
SMILES:	CCCCCCCCCCC(O)C(=O)O
Mol. weight [g/mol]:	216.32
CAS:	2984-55-6

Physical Properties

Property code	Value	Unit	Source
gf	-354.84	kJ/mol	Joback Method
hf	-713.33	kJ/mol	Joback Method
hfus	33.09	kJ/mol	Joback Method
hvap	82.02	kJ/mol	Joback Method
log10ws	-3.32		Crippen Method
logp	2.963		Crippen Method
mcvol	193.250	ml/mol	McGowan Method
pc	2235.52	kPa	Joback Method
tb	711.75	K	Joback Method
tc	881.26	K	Joback Method
tf	381.57	K	Joback Method
vc	0.746	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	564.51	J/mol×K	711.75	Joback Method
cpg	576.79	J/mol×K	740.00	Joback Method
cpg	588.50	J/mol×K	768.25	Joback Method
cpg	599.65	J/mol×K	796.51	Joback Method
cpg	610.27	J/mol×K	824.76	Joback Method
cpg	620.37	J/mol×K	853.01	Joback Method
cpg	629.97	J/mol×K	881.26	Joback Method
dvisc	0.0062208	Paxs	381.57	Joback Method

dvisc	0.0011300	Paxs	436.60	Joback Method
dvisc	0.0003007	Paxs	491.63	Joback Method
dvisc	0.0001045	Paxs	546.66	Joback Method
dvisc	0.0000440	Paxs	601.69	Joback Method
dvisc	0.0000215	Paxs	656.72	Joback Method
dvisc	0.0000117	Paxs	711.75	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2984556&Units=SI
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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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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