

# Adipic acid, 2-decyl isobutyl ester

<b>Inchi:</b>	InChI=1S/C20H38O4/c1-5-6-7-8-9-10-13-18(4)24-20(22)15-12-11-14-19(21)23-16-17(2)3
<b>InchiKey:</b>	HEQPSPLGFQHWHRH-UHFFFAOYSA-N
<b>Formula:</b>	C20H38O4
<b>SMILES:</b>	CCCCCCCCC(C)OC(=O)CCCCC(=O)OCC(C)C
<b>Mol. weight [g/mol]:</b>	342.51

## Physical Properties

Property code	Value	Unit	Source
gf	-355.20	kJ/mol	Joback Method
hf	-956.29	kJ/mol	Joback Method
hfus	46.08	kJ/mol	Joback Method
hvap	77.65	kJ/mol	Joback Method
log10ws	-5.79		Crippen Method
logp	5.428		Crippen Method
mvol	307.540	ml/mol	McGowan Method
pc	1089.22	kPa	Joback Method
rinpol	2200.00		NIST Webbook
rinpol	2200.00		NIST Webbook
tb	808.70	K	Joback Method
tc	994.02	K	Joback Method
tf	429.48	K	Joback Method
vc	1.192	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	970.14	J/molxK	808.70	Joback Method
cpg	988.55	J/molxK	839.59	Joback Method
cpg	1005.89	J/molxK	870.47	Joback Method
cpg	1022.17	J/molxK	901.36	Joback Method
cpg	1037.40	J/molxK	932.24	Joback Method
cpg	1051.61	J/molxK	963.13	Joback Method
cpg	1064.82	J/molxK	994.02	Joback Method
dvisc	0.0011959	Paxs	429.48	Joback Method

dvisc	0.0004873	Paxs	492.68	Joback Method
dvisc	0.0002435	Paxs	555.89	Joback Method
dvisc	0.0001402	Paxs	619.09	Joback Method
dvisc	0.0000894	Paxs	682.29	Joback Method
dvisc	0.0000615	Paxs	745.50	Joback Method
dvisc	0.0000449	Paxs	808.70	Joback Method

## Sources

<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U353596&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U353596&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</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>

## 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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