

# Adipic acid, nonyl 2,2,3,3,4,4,5,5-octafluoropentyl ester

**Inchi:** InChI=1S/C20H30F8O4/c1-2-3-4-5-6-7-10-13-31-15(29)11-8-9-12-16(30)32-14-18(23,24)  
**InchiKey:** ADYXIWWLNXKHOY-UHFFFAOYSA-N  
**Formula:** C20H30F8O4  
**SMILES:** CCCCCCCCCOC(=O)CCCCC(=O)OCC(F)(F)C(F)(F)C(F)(F)C(F)F  
**Mol. weight [g/mol]:** 486.44

## Physical Properties

Property code	Value	Unit	Source
gf	-1902.72	kJ/mol	Joback Method
hf	-2546.14	kJ/mol	Joback Method
hfus	52.01	kJ/mol	Joback Method
hvap	67.61	kJ/mol	Joback Method
log10ws	-7.18		Crippen Method
logp	6.555		Crippen Method
mvol	321.700	ml/mol	McGowan Method
pc	895.87	kPa	Joback Method
rinpol	2124.00		NIST Webbook
rinpol	2124.00		NIST Webbook
tb	793.61	K	Joback Method
tc	971.78	K	Joback Method
tf	456.46	K	Joback Method
vc	1.308	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1032.66	J/mol×K	793.61	Joback Method
cpg	1049.04	J/mol×K	823.30	Joback Method
cpg	1064.41	J/mol×K	853.00	Joback Method
cpg	1078.84	J/mol×K	882.69	Joback Method
cpg	1092.38	J/mol×K	912.39	Joback Method
cpg	1105.09	J/mol×K	942.08	Joback Method
cpg	1117.02	J/mol×K	971.78	Joback Method

# Sources

<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>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U353735&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U353735&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>

# Legend

<b>cpg:</b>	Ideal gas heat capacity
<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>rinpola:</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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