

# 9(And 10)-phenylstearic acid

<b>Inchi:</b>	InChI=1S/2C24H40O2/c1-2-3-4-5-8-12-17-22(23-19-14-11-15-20-23)18-13-9-6-7-10-16-2
<b>InchiKey:</b>	FBWPJYHTBADHNZ-UHFFFAOYSA-N
<b>Formula:</b>	C48H80O4
<b>SMILES:</b>	CCCCCCCC(CCCCCCCC(=O)O)c1cccc1.CCCCCCCCC(CCCCCCCC(=O)O)c1cc
<b>Mol. weight [g/mol]:</b>	721.15

## Physical Properties

Property code	Value	Unit	Source
gf	-63.02	kJ/mol	Joback Method
hf	-1212.79	kJ/mol	Joback Method
hfus	109.12	kJ/mol	Joback Method
hvap	173.36	kJ/mol	Joback Method
log10ws	-16.35		Crippen Method
logp	15.452		Crippen Method
mcvol	665.400	ml/mol	McGowan Method
pc	412.11	kPa	Joback Method
tb	1643.62	K	Joback Method
tc	2804.25	K	Joback Method
tf	842.32	K	Joback Method
vc	2.563	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	2528.80	J/molxK	1643.62	Joback Method
cpg	2561.07	J/molxK	2610.81	Joback Method
cpg	2499.83	J/molxK	2417.37	Joback Method
cpg	2483.11	J/molxK	2223.93	Joback Method
cpg	2493.78	J/molxK	2030.50	Joback Method
cpg	2514.72	J/molxK	1837.06	Joback Method
cpg	2683.95	J/molxK	2804.25	Joback Method
dvisc	3.7837771e-10	Paxs	1643.62	Joback Method
dvisc	6.4154405e-10	Paxs	1510.07	Joback Method
dvisc	1.2050942e-09	Paxs	1376.52	Joback Method

dvisc	2.5920943e-09	Paxs	1242.97	Joback Method
dvisc	6.7044531e-09	Paxs	1109.42	Joback Method
dvisc	2.2492473e-08	Paxs	975.87	Joback Method
dvisc	0.0000001	Paxs	842.32	Joback Method

## Sources

<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>
<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=B6008089&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=B6008089&amp;Units=SI</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>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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