

# Fluorene-9-methanol

<b>Other names:</b>	(fluoren-9-yl)methanol 9-(hydroxymethyl)fluorene 9-Fluorenylmethanol 9-fluorenemethanol 9H-Fluorene-9-methanol
<b>Inchi:</b>	InChI=1S/C14H12O/c15-9-14-12-7-3-1-5-10(12)11-6-2-4-8-13(11)14/h1-8,14-15H,9H2
<b>InchiKey:</b>	XXSCONYSQQLHHT-UHFFFAOYSA-N
<b>Formula:</b>	C14H12O
<b>SMILES:</b>	OCC1c2ccccc2-c2ccccc21
<b>Mol. weight [g/mol]:</b>	196.24
<b>CAS:</b>	24324-17-2

## Physical Properties

Property code	Value	Unit	Source
gf	220.69	kJ/mol	Joback Method
hf	50.72	kJ/mol	Joback Method
hfus	26.27	kJ/mol	Low-temperature heat capacity and standard molar enthalpy of formation of 9-fluorenemethanol (C14H12O)
hvap	68.88	kJ/mol	Joback Method
log10ws	-4.07		Crippen Method
logp	2.791		Crippen Method
mcvol	155.610	ml/mol	McGowan Method
pc	3235.66	kPa	Joback Method
rinpol	277.30		NIST Webbook
rinpol	277.30		NIST Webbook
tb	673.42	K	Joback Method
tc	895.46	K	Joback Method
tf	411.22	K	Joback Method
vc	0.596	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	469.74	J/mol×K	895.46	Joback Method
cpg	407.08	J/mol×K	673.42	Joback Method
cpg	419.36	J/mol×K	710.43	Joback Method
cpg	430.77	J/mol×K	747.43	Joback Method
cpg	441.41	J/mol×K	784.44	Joback Method
cpg	451.39	J/mol×K	821.45	Joback Method
cpg	460.80	J/mol×K	858.46	Joback Method
dvisc	0.0002303	Paxs	673.42	Joback Method
dvisc	0.0021717	Paxs	411.22	Joback Method
dvisc	0.0012484	Paxs	454.92	Joback Method
dvisc	0.0007908	Paxs	498.62	Joback Method
dvisc	0.0005392	Paxs	542.32	Joback Method
dvisc	0.0003892	Paxs	586.02	Joback Method
dvisc	0.0002940	Paxs	629.72	Joback Method
hfust	26.27	kJ/mol	234.00	NIST Webbook
rhos	1084.00	kg/m3	298.15	A combined experimental and computational thermodynamic study of fluorene-9-methanol and fluorene-9-carboxylic acid

## Sources

**NIST Webbook:**

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C24324172&Units=SI>

**Crippen Method:**

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

**Crippen Method:**

[https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

**Low-temperature heat capacity and standard molar enthalpy of formation of fluorene-9-methanol and 2O: A combined experimental and computational thermodynamic study of Joback Method**  
McGowan Method:  
fluorene-9-carboxylic acid:

<https://www.doi.org/10.1016/j.jct.2003.08.017>

<https://www.doi.org/10.1016/j.jct.2013.03.005>

[https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_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

<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hfust:</b>	Enthalpy of fusion at a given temperature
<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>rhos:</b>	Solid Density
<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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