

# 9H-Carbazole, 9-ethyl-

<b>Other names:</b>	9-ethylcarbazole Carbazole, 9-ethyl- N-ethylcarbazole
<b>Inchi:</b>	InChI=1S/C14H13N/c1-2-15-13-9-5-3-7-11(13)12-8-4-6-10-14(12)15/h3-10H,2H2,1H3
<b>InchiKey:</b>	PLAZXGNBGZYJSA-UHFFFAOYSA-N
<b>Formula:</b>	C14H13N
<b>SMILES:</b>	CCn1c2ccccc2c2ccccc21
<b>Mol. weight [g/mol]:</b>	195.26
<b>CAS:</b>	86-28-2

## Physical Properties

Property code	Value	Unit	Source
chs	-7437.60 ± 1.80	kJ/mol	NIST Webbook
hf	169.70 ± 2.60	kJ/mol	NIST Webbook
hfs	70.60 ± 2.60	kJ/mol	NIST Webbook
hsub	99.10 ± 0.30	kJ/mol	NIST Webbook
hsub	99.10	kJ/mol	NIST Webbook
hsub	99.10 ± 0.30	kJ/mol	NIST Webbook
log10ws	-5.34		Crippen Method
logp	3.814		Crippen Method
mcvol	159.720	ml/mol	McGowan Method
rinpol	313.97		NIST Webbook
ripol	2722.00		NIST Webbook
ripol	2769.00		NIST Webbook
tf	340.65 ± 1.50	K	NIST Webbook
tf	344.00 ± 4.00	K	NIST Webbook
tf	341.00 ± 3.00	K	NIST Webbook
tf	340.65 ± 2.00	K	NIST Webbook

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cps	238.20	J/mol×K	298.15	NIST Webbook
hsubt	98.40 ± 0.30	kJ/mol	319.50	NIST Webbook

rho1	1048.20	kg/m3	363.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers
rho1	1055.37	kg/m3	353.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers
rho1	1055.51	kg/m3	353.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers
rho1	1055.63	kg/m3	353.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers
rho1	1048.06	kg/m3	363.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers
rho1	1063.05	kg/m3	343.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers
rho1	1048.32	kg/m3	363.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers
rho1	1040.85	kg/m3	373.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers
rho1	1040.99	kg/m3	373.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers

rho1	1041.11	kg/m3	373.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers
rho1	1062.93	kg/m3	343.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers
rho1	1062.78	kg/m3	343.20	Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers

## Sources

Solubility of N-Ethylcarbazole in different organic solvent at 279.15 - Measurement of Hydrogen Solubility in Potential Liquid Organic Hydrogen Carriers  
McGowan Method:

<https://www.doi.org/10.1016/j.fluid.2014.06.030>

NIST Webbook:

<https://www.doi.org/10.1021/acs.jced.5b00789>

Crippen Method:

<http://link.springer.com/article/10.1007/BF02311772>

Crippen Method:

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C86282&Units=SI>

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

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

## Legend

<b>chs:</b>	Standard solid enthalpy of combustion
<b>cps:</b>	Solid phase heat capacity
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfs:</b>	Solid phase enthalpy of formation at standard conditions
<b>hsub:</b>	Enthalpy of sublimation at standard conditions
<b>hsubt:</b>	Enthalpy of sublimation at a given temperature
<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>rho1:</b>	Liquid Density
<b>rinpol:</b>	Non-polar retention indices

**ripol:** Polar retention indices  
**tf:** Normal melting (fusion) point

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