

# (3a«alpha»,4«alpha»,7«alpha»,7a«alpha»)-3a,4,7,7

**Inchi:** InChI=1S/C10H12/c1-2-9-7-4-5-8(6-7)10(9)3-1/h1-2,4-5,7-10H,3,6H2/t7-,8-,9-,10+/m1/s1  
**InchiKey:** HECLRDQVFMWTQS-KYXWUPHJSA-N  
**Formula:** C10H12  
**SMILES:** C1=CC2C3C=CC(C3)C2C1  
**Mol. weight [g/mol]:** 132.20  
**CAS:** 1755-01-7

## Physical Properties

Property code	Value	Unit	Source
chs	-5766.80 ± 5.90	kJ/mol	NIST Webbook
gf	255.68	kJ/mol	Joback Method
hf	57.73	kJ/mol	Joback Method
hfus	17.48	kJ/mol	Joback Method
hvap	38.04	kJ/mol	Joback Method
log10ws	-2.43		Crippen Method
logp	2.385		Crippen Method
mcvol	110.580	ml/mol	McGowan Method
pc	3364.54	kPa	Joback Method
ss	230.00	J/molxK	NIST Webbook
tb	446.34	K	Joback Method
tc	664.47	K	Joback Method
tf	250.04	K	Joback Method
vc	0.429	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	322.43	J/molxK	628.12	Joback Method
cpg	242.89	J/molxK	446.34	Joback Method
cpg	261.44	J/molxK	482.70	Joback Method
cpg	278.56	J/molxK	519.05	Joback Method
cpg	294.37	J/molxK	555.41	Joback Method
cpg	308.96	J/molxK	591.76	Joback Method
cpg	334.89	J/molxK	664.47	Joback Method

cps	188.70	J/molxK	298.15	NIST Webbook
dvisc	0.0010224	Paxs	446.34	Joback Method
dvisc	0.0004087	Paxs	250.04	Joback Method
dvisc	0.0005202	Paxs	282.76	Joback Method
dvisc	0.0006298	Paxs	315.47	Joback Method
dvisc	0.0007356	Paxs	348.19	Joback Method
dvisc	0.0008365	Paxs	380.91	Joback Method
dvisc	0.0009322	Paxs	413.62	Joback Method
hfust	2.22	kJ/mol	304.80	NIST Webbook
hfust	1.79	kJ/mol	304.70	NIST Webbook
hvapt	43.60	kJ/mol	398.00	NIST Webbook

## 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=C1755017&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C1755017&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>
<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>chs:</b>	Standard solid enthalpy of combustion
<b>cpg:</b>	Ideal gas heat capacity
<b>cps:</b>	Solid phase 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>hfust:</b>	Enthalpy of fusion at a given temperature
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>hvapt:</b>	Enthalpy of vaporization 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>pc:</b>	Critical Pressure
<b>ss:</b>	Solid phase molar entropy at standard conditions
<b>tb:</b>	Normal Boiling Point Temperature

**tc:** Critical Temperature  
**tf:** Normal melting (fusion) point  
**vc:** Critical Volume

Latest version available from:

<https://www.cheméo.com/cid/44-144-3/3a-alpha-4-alpha-7-alpha-7a-alpha-3a-4-7-7a-tetrahydro-4-7-methano-1H-ind>

Generated by Cheméo on 2024-04-24 17:23:56.608891743 +0000 UTC m=+16268685.529469065.

Cheméo (<https://www.cheméo.com>) is the biggest free database of chemical and physical data for the process industry.