

4-Decen-6-yne, (E)-

Other names:	(4E)-4-Decen-6-yne (E)-4-Decen-6-yne
Inchi:	InChI=1S/C10H16/c1-3-5-7-9-10-8-6-4-2/h7,9H,3-6H2,1-2H3/b9-7+
InchiKey:	HAMAIVSPUXRZEN-VQHVLOKHSA-N
Formula:	C10H16
SMILES:	CCCC#CC=CCCC
Mol. weight [g/mol]:	136.23
CAS:	13343-77-6

Physical Properties

Property code	Value	Unit	Source
gf	316.34	kJ/mol	Joback Method
hf	139.79	kJ/mol	Joback Method
hfus	24.98	kJ/mol	Joback Method
hvap	39.96	kJ/mol	Joback Method
log10ws	-3.66		Crippen Method
logp	3.146		Crippen Method
mvol	138.860	ml/mol	McGowan Method
pc	2587.22	kPa	Joback Method
rinsol	1244.00		NIST Webbook
tb	441.36	K	Joback Method
tc	634.98	K	Joback Method
tf	303.48	K	Joback Method
vc	0.537	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	272.70	J/molxK	441.36	Joback Method
cpg	286.90	J/molxK	473.63	Joback Method
cpg	300.43	J/molxK	505.90	Joback Method
cpg	313.31	J/molxK	538.17	Joback Method
cpg	325.59	J/molxK	570.44	Joback Method
cpg	337.27	J/molxK	602.71	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13343776&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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