3-Heptene, 2-methyl-

Other names: 2-Methyl-3-heptene
Inchi: InChI=1S/C8H16/c1-4-5-6-7-8(2)3/h6-8H,4-5H2,1-3H3
InchiKey: CYEZJYAMLNTSKN-UHFFFAOYSA-N
Formula: C8H16
SMILES: CCCC=CC(C)C
Mol. weight [g/mol]: 112.21
CAS: 17618-76-7

Physical Properties

Property code	Value	Unit	Source
gf	94.26	kJ/mol	Joback Method
hf	-96.51	kJ/mol	Joback Method
hfus	13.15	kJ/mol	Joback Method
hvap	32.97	kJ/mol	Joback Method
log10ws	-2.78		Crippen Method
logp	2.999		Crippen Method
mcvol	119.280	ml/mol	McGowan Method
pc	2695.80	kPa	Joback Method
rinpol	751.00		NIST Webbook
rinpol	752.00		NIST Webbook
tb	393.55 ± 0.70	K	NIST Webbook
tc	562.05	K	Joback Method
tf	159.84	K	Joback Method
vc	0.458	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	217.94	J/mol×K	386.16	Joback Method
cpg	231.23	J/mol×K	415.47	Joback Method
cpg	243.94	J/mol×K	444.79	Joback Method
cpg	256.10	J/mol×K	474.10	Joback Method
cpg	267.72	J/mol×K	503.42	Joback Method
cpg	278.83	J/mol×K	532.73	Joback Method

cpg	289.43	J/mol×K	562.05	Joback Method
dvisc	0.0101457	Pa×s	159.84	Joback Method
dvisc	0.0028001	Pa×s	197.56	Joback Method
dvisc	0.0011677	Pa×s	235.28	Joback Method
dvisc	0.0006201	Pa×s	273.00	Joback Method
dvisc	0.0003840	Pa×s	310.72	Joback Method
dvisc	0.0002638	Pa×s	348.44	Joback Method
dvisc	0.0001950	Pa×s	386.16	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C17618767&Units=SI

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
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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