6-Methyl-2-heptyne

Other names: 2-Heptyne, 6-methyl
Inchi: InChI=1S/C8H14/c1-4-5-6-7-8(2)3/h8H,6-7H2,1-3H3
InchiKey: HIEALULIKYDRQN-UHFFFAOYSA-N
Formula: C8H14
SMILES: CC#CCCC(C)C
Mol. weight [g/mol]: 110.20
CAS: 51065-64-6

Physical Properties

Property code	Value	Unit	Source
gf	216.84	kJ/mol	Joback Method
hf	58.57	kJ/mol	Joback Method
hfus	16.07	kJ/mol	Joback Method
hvap	35.17	kJ/mol	Joback Method
log10ws	-2.72		Crippen Method
logp	2.446		Crippen Method
mcvol	114.980	ml/mol	McGowan Method
pc	3025.61	kPa	Joback Method
tb	391.00	K	Joback Method
tc	582.81	K	Joback Method
tf	271.02	K	Joback Method
vc	0.440	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	208.33	J/mol×K	391.00	Joback Method
cpg	220.75	J/mol×K	422.97	Joback Method
cpg	232.68	J/mol×K	454.94	Joback Method
cpg	244.12	J/mol×K	486.91	Joback Method
cpg	255.09	J/mol×K	518.88	Joback Method
cpg	265.59	J/mol×K	550.85	Joback Method
cpg	275.65	J/mol×K	582.81	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.50562e+01
Coeff. B	-3.63431e+03
Coeff. C	-5.15160e+01
Temperature range (K), min.	297.60
Temperature range (K), max.	424.47

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=C51065646&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume