1,6-Octadiene, 2,7-dimethyl-

Other names: 2,7-Dimethyl-2,7-octadiene
2,7-Dimethyl-1,6-octadiene
Inchi: InChI=1S/C10H18/c1-9(2)7-5-6-8-10(3)4/h8H,1,5-7H2,2-4H3
InchiKey: FHCSXUVUZAASRT-UHFFFAOYSA-N
Formula: C10H18
SMILES: C=C(C)CCCC=C(C)C
Mol. weight [g/mol]: 138.25
CAS: 40195-09-3

Physical Properties

Property code	Value	Unit	Source
gf	184.28	kJ/mol	Joback Method
hf	-26.66	kJ/mol	Joback Method
hfus	17.96	kJ/mol	Joback Method
hvap	37.30	kJ/mol	Joback Method
log10ws	-3.72		Crippen Method
logp	3.699		Crippen Method
mcvol	143.160	ml/mol	McGowan Method
pc	2324.78	kPa	Joback Method
ripol	1312.00		NIST Webbook
tb	428.80	K	Joback Method
tc	609.11	K	Joback Method
tf	167.70	K	Joback Method
vc	0.558	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	283.95	J/mol×K	428.80	Joback Method
cpg	298.89	J/mol×K	458.85	Joback Method
cpg	313.14	J/mol×K	488.90	Joback Method
cpg	326.70	J/mol×K	518.96	Joback Method
cpg	339.63	J/mol×K	549.01	Joback Method
cpg	351.93	J/mol×K	579.06	Joback Method

cpg	363.65	J/mol×K	609.11	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C40195093&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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume