

trans-2,2,7,7-Tetramethyl-4-octene

Inchi:	InChI=1S/C12H24/c1-11(2,3)9-7-8-10-12(4,5)6/h7-8H,9-10H2,1-6H3/b8-7+
InchiKey:	VUVGYCAGSXOGCC-BQYQJAHWSA-N
Formula:	C12H24
SMILES:	CC(C)(C)CC=CCC(C)(C)C
Mol. weight [g/mol]:	168.32
CAS:	5223-58-5

Physical Properties

Property code	Value	Unit	Source
gf	136.06	kJ/mol	Joback Method
hf	-191.29	kJ/mol	Joback Method
hfus	12.21	kJ/mol	Joback Method
hvap	39.67	kJ/mol	Joback Method
log10ws	-4.22		Crippen Method
logp	4.415		Crippen Method
mcvol	175.640	ml/mol	McGowan Method
pc	1923.67	kPa	Joback Method
tb	471.66	K	Joback Method
tc	660.75	K	Joback Method
tf	224.76	K	Joback Method
vc	0.665	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	395.36	J/molxK	471.66	Joback Method
cpg	414.76	J/molxK	503.17	Joback Method
cpg	433.04	J/molxK	534.69	Joback Method
cpg	450.25	J/molxK	566.20	Joback Method
cpg	466.45	J/molxK	597.72	Joback Method
cpg	481.70	J/molxK	629.23	Joback Method
cpg	496.06	J/molxK	660.75	Joback Method
dvisc	0.0147728	Paxs	224.76	Joback Method
dvisc	0.0039996	Paxs	265.91	Joback Method

dvisc	0.0015370	Paxs	307.06	Joback Method
dvisc	0.0007404	Paxs	348.21	Joback Method
dvisc	0.0004162	Paxs	389.36	Joback Method
dvisc	0.0002612	Paxs	430.51	Joback Method
dvisc	0.0001778	Paxs	471.66	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C5223585&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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