1-Decene, 2,4-dimethyl-

Other names: 2,4-Dimethyl 1-decene
Inchi: InChI=1S/C12H24/c1-5-6-7-8-9-12(4)10-11(2)3/h12H,2,5-10H2,1,3-4H3
InchiKey: DCJZDSLNTFHRSM-UHFFFAOYSA-N
Formula: C12H24
SMILES: C=C(C)CC(C)CCCCCC
Mol. weight [g/mol]: 168.32
CAS: 55170-80-4

Physical Properties

Property code	Value	Unit	Source
gf	127.01	kJ/mol	Joback Method
hf	-180.65	kJ/mol	Joback Method
hfus	20.72	kJ/mol	Joback Method
hvap	41.33	kJ/mol	Joback Method
log10ws	-4.46		Crippen Method
logp	4.559		Crippen Method
mcvol	175.640	ml/mol	McGowan Method
pc	1865.94	kPa	Joback Method
tb	470.08	K	Joback Method
tc	640.25	K	Joback Method
tf	194.28	K	Joback Method
vc	0.683	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	388.99	J/mol×K	470.08	Joback Method
cpg	405.97	J/mol×K	498.44	Joback Method
cpg	422.26	J/mol×K	526.80	Joback Method
cpg	437.87	J/mol×K	555.17	Joback Method
cpg	452.82	J/mol×K	583.53	Joback Method
cpg	467.14	J/mol×K	611.89	Joback Method
cpg	480.85	J/mol×K	640.25	Joback Method

Sources

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=C55170804&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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