Dodecane, 2,6,11-trimethyl-

Other names: 2,6,11-Trimethyldodecane
Inchi: InChI=1S/C15H32/c1-13(2)9-6-7-11-15(5)12-8-10-14(3)4/h13-15H,6-12H2,1-5H3
InchiKey: FONXOARHSFUBAN-UHFFFAOYSA-N
Formula: C15H32
SMILES: CC(C)CCCCC(C)CCCC(C)C
Mol. weight [g/mol]: 212.41
CAS: 31295-56-4

Physical Properties

Property code	Value	Unit	Source
gf	68.10	kJ/mol	Joback Method
hf	-368.77	kJ/mol	Joback Method
hfus	24.04	kJ/mol	Joback Method
hvap	47.82	kJ/mol	Joback Method
log10ws	-5.38		Crippen Method
logp	5.665		Crippen Method
mcvol	222.210	ml/mol	McGowan Method
pc	1441.35	kPa	Joback Method
rinpol	1275.00		NIST Webbook
rinpol	1275.00		NIST Webbook
tb	541.28	K	Joback Method
tc	708.78	K	Joback Method
tf	213.81	K	Joback Method
vc	0.858	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	558.60	J/mol×K	541.28	Joback Method
cpg	578.41	J/mol×K	569.20	Joback Method
cpg	597.41	J/mol×K	597.11	Joback Method
cpg	615.63	J/mol×K	625.03	Joback Method
cpg	633.08	J/mol×K	652.95	Joback Method
cpg	649.78	J/mol×K	680.87	Joback Method

cpg	665.77	J/mol×K	708.78	Joback Method
dvisc	0.0251735	Pa×s	213.81	Joback Method
dvisc	0.0043898	Pa×s	268.39	Joback Method
dvisc	0.0013813	Pa×s	322.97	Joback Method
dvisc	0.0006072	Pa×s	377.54	Joback Method
dvisc	0.0003285	Pa×s	432.12	Joback Method
dvisc	0.0002040	Pa×s	486.70	Joback Method
dvisc	0.0001394	Pa×s	541.28	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C31295564&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
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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