

Decane, 2,3,5-trimethyl-

Other names:	2,3,5-Trimethyl decane
Inchi:	InChI=1S/C13H28/c1-6-7-8-9-12(4)10-13(5)11(2)3/h11-13H,6-10H2,1-5H3
InchiKey:	AQDNBRMRIRTYIA-UHFFFAOYSA-N
Formula:	C13H28
SMILES:	CCCCC(C)CC(C)C(C)C
Mol. weight [g/mol]:	184.36
CAS:	62238-11-3

Physical Properties

Property code	Value	Unit	Source
gf	51.26	kJ/mol	Joback Method
hf	-327.49	kJ/mol	Joback Method
hfus	18.86	kJ/mol	Joback Method
hvap	43.37	kJ/mol	Joback Method
log10ws	-4.54		Crippen Method
logp	4.885		Crippen Method
mcvol	194.030	ml/mol	McGowan Method
pc	1676.91	kPa	Joback Method
tb	495.52	K	Joback Method
tc	665.29	K	Joback Method
tf	191.27	K	Joback Method
vc	0.746	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	455.81	J/mol×K	495.52	Joback Method
cpg	474.51	J/mol×K	523.81	Joback Method
cpg	492.46	J/mol×K	552.11	Joback Method
cpg	509.67	J/mol×K	580.40	Joback Method
cpg	526.17	J/mol×K	608.70	Joback Method
cpg	541.98	J/mol×K	636.99	Joback Method
cpg	557.11	J/mol×K	665.29	Joback Method
dvisc	0.0334373	Paxs	191.27	Joback Method

dvisc	0.0054966	Paxs	241.98	Joback Method
dvisc	0.0016891	Paxs	292.69	Joback Method
dvisc	0.0007355	Paxs	343.39	Joback Method
dvisc	0.0003966	Paxs	394.10	Joback Method
dvisc	0.0002462	Paxs	444.81	Joback Method
dvisc	0.0001685	Paxs	495.52	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C62238113&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

Legend

cp_g:	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
h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀ws:	Log ₁₀ 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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