Benzene, (1,1-dimethylnonyl)-

Other names: 2-Methyl-2-phenyldecane
Inchi: InChI=1S/C17H28/c1-4-5-6-7-8-12-15-17(2,3)16-13-10-9-11-14-16/h9-11,13-14H,4-8,12,
InchiKey: QECYGFODULXACU-UHFFFAOYSA-N
Formula: C17H28
SMILES: CCCCCCCCC(C)(C)c1ccccc1
Mol. weight [g/mol]: 232.40
CAS: 55191-25-8

Physical Properties

Property code	Value	Unit	Source
gf	207.51	kJ/mol	Joback Method
hf	-166.43	kJ/mol	Joback Method
hfus	26.41	kJ/mol	Joback Method
hvap	54.42	kJ/mol	Joback Method
log10ws	-5.72		Crippen Method
logp	5.715		Crippen Method
mcvol	226.630	ml/mol	McGowan Method
pc	1600.00	kPa	Joback Method
tb	611.81	K	Joback Method
tc	808.91	K	Joback Method
tf	310.19	K	Joback Method
vc	0.869	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	601.01	J/mol×K	611.81	Joback Method
cpg	621.39	J/mol×K	644.66	Joback Method
cpg	640.59	J/mol×K	677.51	Joback Method
cpg	658.67	J/mol×K	710.36	Joback Method
cpg	675.69	J/mol×K	743.21	Joback Method
cpg	691.73	J/mol×K	776.06	Joback Method
cpg	706.82	J/mol×K	808.91	Joback Method
dvisc	0.0038873	Pa×s	310.19	Joback Method

dvisc	0.0014554	Pa×s	360.46	Joback Method
dvisc	0.0006931	Pa×s	410.73	Joback Method
dvisc	0.0003880	Pa×s	461.00	Joback Method
dvisc	0.0002435	Pa×s	511.27	Joback Method
dvisc	0.0001661	Pa×s	561.54	Joback Method
dvisc	0.0001206	Pa×s	611.81	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C55191258&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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