Benzene, (2-methyloctyl)-

Other names: (2-methyloctyl)benzene
Inchi: InChI=1S/C15H24/c1-3-4-5-7-10-14(2)13-15-11-8-6-9-12-15/h6,8-9,11-12,14H,3-5,7,10,1
InchiKey: LNCYHRXIFYLQPO-UHFFFAOYSA-N
Formula: C15H24
SMILES: CCCCCCC(C)Cc1ccccc1
Mol. weight [g/mol]: 204.35
CAS: 49826-80-4

Physical Properties

Property code	Value	Unit	Source
gf	185.39	kJ/mol	Joback Method
hf	-121.68	kJ/mol	Joback Method
hfus	25.12	kJ/mol	Joback Method
hvap	50.87	kJ/mol	Joback Method
log10ws	-4.96		Crippen Method
logp	4.836		Crippen Method
mcvol	198.450	ml/mol	McGowan Method
pc	1859.51	kPa	Joback Method
tb	568.84	K	Joback Method
tc	764.22	K	Joback Method
tf	270.23	K	Joback Method
vc	0.761	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	492.85	J/mol×K	568.84	Joback Method
cpg	578.50	J/mol×K	731.66	Joback Method
cpg	563.24	J/mol×K	699.10	Joback Method
cpg	547.09	J/mol×K	666.53	Joback Method
cpg	530.00	J/mol×K	633.97	Joback Method
cpg	511.93	J/mol×K	601.40	Joback Method
cpg	592.90	J/mol×K	764.22	Joback Method
dvisc	0.0001551	Pa×s	568.84	Joback Method

dvisc	0.0002099	Pa×s	519.07	Joback Method
dvisc	0.0003028	Pa×s	469.30	Joback Method
dvisc	0.0004766	Pa×s	419.54	Joback Method
dvisc	0.0008475	Pa×s	369.77	Joback Method
dvisc	0.0018025	Pa×s	320.00	Joback Method
dvisc	0.0050617	Pa×s	270.23	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C49826804&Units=SI

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