Cyclohexanecarboxylic acid, 4-(1,1-dimethylethyl)-, trans-

Other names: Cyclohexanecarboxylic acid, 4-tert-butyl-, trans-
trans-4-tert-Butylcyclohexanecarboxylic acid

Inchi: InChI=1S/C11H20O2/c1-11(2,3)9-6-4-8(5-7-9)10(12)13/h8-9H,4-7H2,1-3H3,(H,12,13)/t8-

InchiKey: QVQKEGYITJBHRQ-KYZUINATSA-N

Formula: C11H20O2

SMILES: CC(C)(C)C1CCC(C(=O)O)CC1

Mol. weight [g/mol]: 184.28

CAS: 943-29-3

Physical Properties

Property code	Value	Unit	Source
gf	-204.42	kJ/mol	Joback Method
hf	-509.95	kJ/mol	Joback Method
hfus	15.42	kJ/mol	Joback Method
hvap	62.33	kJ/mol	Joback Method
log10ws	-2.70		Crippen Method
logp	2.924		Crippen Method
mcvol	162.430	ml/mol	McGowan Method
pc	2690.21	kPa	Joback Method
tb	608.78	K	Joback Method
tc	810.89	K	Joback Method
tf	330.04	K	Joback Method
vc	0.598	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	447.12	J/mol×K	608.78	Joback Method
cpg	463.95	J/mol×K	642.46	Joback Method
cpg	479.76	J/mol×K	676.15	Joback Method
cpg	494.60	J/mol×K	709.83	Joback Method
cpg	508.50	J/mol×K	743.52	Joback Method
cpg	521.50	J/mol×K	777.20	Joback Method
cpg	533.64	J/mol×K	810.89	Joback Method

dvisc	0.0106457	Pa×s	330.04	Joback Method
dvisc	0.0029539	Pa×s	376.50	Joback Method
dvisc	0.0010862	Pa×s	422.95	Joback Method
dvisc	0.0004869	Pa×s	469.41	Joback Method
dvisc	0.0002522	Pa×s	515.87	Joback Method
dvisc	0.0001456	Pa×s	562.32	Joback Method
dvisc	0.0000914	Pa×s	608.78	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C943293&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

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