Propane, 2,2-dimethyl-1,1,1-triphenyl-

Inchi: InChI=1S/C23H24/c1-22(2,3)23(19-13-7-4-8-14-19,20-15-9-5-10-16-20)21-17-11-6-12-18
InchiKey: SVRBTPSIMKABRS-UHFFFAOYSA-N
Formula: C23H24
SMILES: CC(C)(C)C(c1ccccc1)(c1ccccc1)c1ccccc1
Mol. weight [g/mol]: 300.44
CAS: 24523-60-2

Physical Properties

Property code	Value	Unit	Source
gf	485.69	kJ/mol	Joback Method
hf	174.04	kJ/mol	Joback Method
hfus	22.62	kJ/mol	Joback Method
hvap	71.03	kJ/mol	Joback Method
log10ws	-6.39		Crippen Method
logp	6.067		Crippen Method
mcvol	263.650	ml/mol	McGowan Method
pc	1743.37	kPa	Joback Method
tb	799.22	K	Joback Method
tc	1067.42	K	Joback Method
tf	433.07	K	Joback Method
vc	0.978	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	775.81	J/mol×K	799.22	Joback Method
cpg	795.77	J/mol×K	843.92	Joback Method
cpg	813.96	J/mol×K	888.62	Joback Method
cpg	830.64	J/mol×K	933.32	Joback Method
cpg	846.07	J/mol×K	978.02	Joback Method
cpg	860.51	J/mol×K	1022.72	Joback Method
cpg	874.22	J/mol×K	1067.42	Joback Method
dvisc	0.0011434	Pa×s	433.07	Joback Method
dvisc	0.0004781	Pa×s	494.10	Joback Method

dvisc	0.0002421	Pa×s	555.12	Joback Method
dvisc	0.0001403	Pa×s	616.14	Joback Method
dvisc	0.0000897	Pa×s	677.17	Joback Method
dvisc	0.0000618	Pa×s	738.20	Joback Method
dvisc	0.0000450	Pa×s	799.22	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=C24523602&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