Acetophenone, 2,2,2-triphenyl-

Other names:	2,2,2-Triphenylacetophenone
	Benzopinacolone
	«beta»-Benzopinacolone
	Ethanone, tetraphenyl-
	1,2,2,2-Tetraphenyl-1-ethanone
	«omega»,«omega»,«omega»-Triphenylacetophenone
	Phenyl trityl ketone
	Tetraphenylethanone
	1,2,2,2-Tetraphenylethanone
Inchi:	InChI=1S/C26H20O/c27-25(21-13-5-1-6-14-21)26(22-15-7-2-8-16-22,23-17-9-3-10-18-23
InchiKey:	CFBBKHROQRFCNZ-UHFFFAOYSA-N
Formula:	C26H20O
SMILES:	O=C(c1ccccc1)C(c1ccccc1)(c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	348.44
CAS:	466-37-5

Physical Properties

Property code	Value	Unit	Source
chs	-13310.00	kJ/mol	NIST Webbook
gf	491.60	kJ/mol	Joback Method
hf	244.82	kJ/mol	Joback Method
hfus	33.45	kJ/mol	Joback Method
hvap	88.02	kJ/mol	Joback Method
log10ws	-6.85		Crippen Method
logp	5.904		Crippen Method
mcvol	283.730	ml/mol	McGowan Method
pc	1877.28	kPa	Joback Method
tb	951.64	K	Joback Method
tc	1236.07	K	Joback Method
tf	540.81	K	Joback Method
vc	1.054	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	861.47	J/mol×K	951.64	Joback Method
cpg	876.79	J/mol×K	999.05	Joback Method
cpg	890.84	J/mol×K	1046.45	Joback Method
cpg	903.93	J/mol×K	1093.86	Joback Method
cpg	916.35	J/mol×K	1141.26	Joback Method
cpg	928.39	J/mol×K	1188.67	Joback Method
cpg	940.36	J/mol×K	1236.07	Joback Method
dvisc	0.0005338	Pa×s	540.81	Joback Method
dvisc	0.0002645	Pa×s	609.28	Joback Method
dvisc	0.0001510	Pa×s	677.75	Joback Method
dvisc	0.0000956	Pa×s	746.23	Joback Method
dvisc	0.0000653	Pa×s	814.70	Joback Method
dvisc	0.0000474	Pa×s	883.17	Joback Method
dvisc	0.0000360	Pa×s	951.64	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C466375&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
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

Legend

chs: Standard solid enthalpy of combustion
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