Fenchone

Other names:	Bicyclo[2.2.1]heptan-2-one, 1,3,3-trimethyl-
	2-Norbornanone, 1,3,3-trimethyl-
	1,3,3-Trimethyl-2-norbornanone
	1,3,3-Trimethylbicyclo[2.2.1]heptan-2-one
	1,3,3-Trimethylnorcamphor
	Bicyclo[2.2.1]heptane-2-one,1,3,3-trimethyl
	Fenchon
	1,3,3-Trimethyl-2-norcamphanone
	dl-Fenchone
	NSC 122687
	(.+/-.)-Fenchone
	NSC 8896
	3,3-dimethyl-8,9-dinorbornan-2-one
	l-fenchone
Inchi:	InChI=1S/C10H16O/c1-9(2)7-4-5-10(3,6-7)8(9)11/h7H,4-6H2,1-3H3
InchiKey:	LHXDLQBQYFFVNW-UHFFFAOYSA-N
Formula:	C10H16O
SMILES:	CC12CCC(C1)C(C)(C)C2=O
Mol. weight [g/mol]:	152.23
CAS:	126-21-6

Physical Properties

Property code	Value	Unit	Source
gf	1.44	kJ/mol	Joback Method
hf	-237.85	kJ/mol	Joback Method
hfus	3.81	kJ/mol	Joback Method
hvap	39.49	kJ/mol	Joback Method
log10ws	-2.35		Crippen Method
logp	2.402		Crippen Method
mcvol	131.610	ml/mol	McGowan Method
pc	3082.99	kPa	Joback Method
rinpol	1087.00		NIST Webbook
rinpol	1084.00		NIST Webbook
rinpol	1090.00		NIST Webbook
rinpol	1087.00		NIST Webbook
rinpol	1088.00		NIST Webbook
rinpol	1070.00		NIST Webbook

rinpol	1080.00	NIST Webbook
rinpol	1102.00	NIST Webbook
rinpol	1087.00	NIST Webbook
rinpol	1087.00	NIST Webbook
rinpol	1097.00	NIST Webbook
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ripol	1426.00		NIST Webbook
ripol	1410.00		NIST Webbook
ripol	1397.00		NIST Webbook
ripol	1402.00		NIST Webbook
ripol	1396.00		NIST Webbook
ripol	1389.00		NIST Webbook
tb	466.20 ± 1.00	K	NIST Webbook
tc	742.46	K	Joback Method
tf	346.60	K	Joback Method
vc	0.503	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	324.29	J/mol×K	509.58	Joback Method
cpg	342.61	J/mol×K	548.39	Joback Method
cpg	359.48	J/mol×K	587.21	Joback Method
cpg	375.18	J/mol×K	626.02	Joback Method
cpg	389.96	J/mol×K	664.83	Joback Method
cpg	404.06	J/mol×K	703.65	Joback Method
cpg	417.76	J/mol×K	742.46	Joback Method

Sources

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=C126216&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

cpg:	Ideal gas heat capacity
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
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature

tf:	Normal melting (fusion) point
vc:	Critical Volume

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