Cyclohexanone, 2-methyl-5-(1-methylethenyl)-, trans-

Other names: p-Menth-8-en-2-one, trans-
trans-Dihydrocarvone
Carvone, Dihydro-, trans
p-Menth-8-en-2-one, E-
5-Isopropenyl-2-methylcyclohexanone, trans
Cyclohexanone, 2-methyl-5-(1-methylethenyl)-, (2R,5R)-rel-
(2R,5R)-2-methyl-5-prop-1-en-2-ylcyclohexan-1-one

Inchi: InChI=1S/C10H16O/c1-7(2)9-5-4-8(3)10(11)6-9/h8-9H,1,4-6H2,2-3H3/t8-,9-/m1/s1

InchiKey: AZOCECCLWFDTAP-RKDXNWHRSA-N

Formula: C10H16O

SMILES: C=C(C)C1CCC(C)C(=O)C1

Mol. weight [g/mol]: 152.23

CAS: 5948-04-9

Physical Properties

Property code	Value	Unit	Source
gf	6.76	kJ/mol	Joback Method
hf	-237.81	kJ/mol	Joback Method
hfus	11.48	kJ/mol	Joback Method
hvap	41.63	kJ/mol	Joback Method
log10ws	-2.55		Crippen Method
logp	2.568		Crippen Method
mcvol	138.170	ml/mol	McGowan Method
pc	2701.41	kPa	Joback Method
rinpol	1197.00		NIST Webbook
rinpol	1164.00		NIST Webbook
rinpol	1200.00		NIST Webbook
rinpol	1187.00		NIST Webbook
rinpol	1204.00		NIST Webbook
rinpol	1187.00		NIST Webbook
rinpol	1200.00		NIST Webbook
rinpol	1200.00		NIST Webbook
rinpol	1187.00		NIST Webbook
rinpol	1200.00		NIST Webbook
rinpol	1180.00		NIST Webbook
rinpol	1201.00		NIST Webbook
rinpol	1201.00		NIST Webbook

rinpol	1204.00	NIST Webbook
rinpol	1200.00	NIST Webbook
rinpol	1201.00	NIST Webbook
rinpol	1212.00	NIST Webbook
rinpol	1204.00	NIST Webbook
rinpol	1164.00	NIST Webbook
rinpol	1197.00	NIST Webbook
rinpol	1200.00	NIST Webbook
rinpol	1207.00	NIST Webbook
rinpol	1200.00	NIST Webbook
rinpol	1200.00	NIST Webbook
rinpol	1205.00	NIST Webbook
rinpol	1167.00	NIST Webbook
rinpol	1206.00	NIST Webbook
rinpol	1200.00	NIST Webbook
rinpol	1192.00	NIST Webbook
rinpol	1200.00	NIST Webbook
rinpol	1198.00	NIST Webbook
rinpol	1199.00	NIST Webbook
rinpol	1197.00	NIST Webbook
rinpol	1162.00	NIST Webbook
rinpol	1202.00	NIST Webbook
rinpol	1201.00	NIST Webbook
rinpol	1199.00	NIST Webbook
rinpol	1186.00	NIST Webbook
rinpol	1199.00	NIST Webbook
rinpol	1202.30	NIST Webbook
rinpol	1190.00	NIST Webbook
rinpol	1201.00	NIST Webbook
rinpol	1208.00	NIST Webbook
rinpol	1182.00	NIST Webbook
rinpol	1205.00	NIST Webbook
rinpol	1203.00	NIST Webbook
rinpol	1182.00	NIST Webbook
rinpol	1203.00	NIST Webbook
rinpol	1202.00	NIST Webbook
rinpol	1208.00	NIST Webbook
rinpol	1171.00	NIST Webbook
rinpol	1200.00	NIST Webbook
rinpol	1218.00	NIST Webbook
rinpol	1200.40	NIST Webbook
rinpol	1200.00	NIST Webbook
rinpol	1201.00	NIST Webbook
rinpol	1195.00	NIST Webbook

rinpol	1213.00		NIST Webbook
rinpol	1204.00		NIST Webbook
rinpol	1197.00		NIST Webbook
rinpol	1202.00		NIST Webbook
rinpol	1210.00		NIST Webbook
rinpol	1202.00		NIST Webbook
rinpol	1199.00		NIST Webbook
rinpol	1202.00		NIST Webbook
rinpol	1210.00		NIST Webbook
ripol	1602.00		NIST Webbook
ripol	1645.00		NIST Webbook
ripol	1633.00		NIST Webbook
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ripol	1624.00		NIST Webbook
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ripol	1645.00		NIST Webbook
ripol	1624.00		NIST Webbook
ripol	1610.00		NIST Webbook
ripol	1624.00		NIST Webbook
ripol	1600.00		NIST Webbook
ripol	1627.00		NIST Webbook
ripol	1624.00		NIST Webbook
ripol	1616.00		NIST Webbook
ripol	1645.00		NIST Webbook
ripol	1602.00		NIST Webbook
ripol	1627.00		NIST Webbook
ripol	1600.00		NIST Webbook
ripol	1650.00		NIST Webbook
ripol	1645.00		NIST Webbook
ripol	1624.00		NIST Webbook
ripol	1602.00		NIST Webbook
ripol	1645.00		NIST Webbook
tb	507.46	K	Joback Method
tc	729.79	K	Joback Method
tf	258.10	K	Joback Method
vc	0.516	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	320.01	J/mol×K	507.46	Joback Method

cpg	339.03	J/mol×K	544.51	Joback Method
cpg	357.13	J/mol×K	581.57	Joback Method
cpg	374.31	J/mol×K	618.62	Joback Method
cpg	390.57	J/mol×K	655.68	Joback Method
cpg	405.90	J/mol×K	692.73	Joback Method
cpg	420.31	J/mol×K	729.79	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=C5948049&Units=SI

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