

Cyclopentane, 1,2-dimethyl-3-(1-methylethyl)-

Inchi:	InChI=1S/C10H20/c1-7(2)10-6-5-8(3)9(10)4/h7-10H,5-6H2,1-4H3
InchiKey:	MKEWIKKSNRXXFU-UHFFFAOYSA-N
Formula:	C10H20
SMILES:	CC(C)C1CCC(C)C1C
Mol. weight [g/mol]:	140.27
CAS:	489-20-3

Physical Properties

Property code	Value	Unit	Source
gf	52.01	kJ/mol	Joback Method
hf	-235.21	kJ/mol	Joback Method
hfus	14.21	kJ/mol	Joback Method
hvap	37.11	kJ/mol	Joback Method
log10ws	-2.94		Crippen Method
logp	3.325		Crippen Method
mcvol	140.900	ml/mol	McGowan Method
pc	2365.67	kPa	Joback Method
tb	433.70	K	Joback Method
tc	626.62	K	Joback Method
tf	189.88	K	Joback Method
vc	0.528	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	299.70	J/molxK	433.70	Joback Method
cpg	389.01	J/molxK	594.47	Joback Method
cpg	372.79	J/molxK	562.31	Joback Method
cpg	355.76	J/molxK	530.16	Joback Method
cpg	337.92	J/molxK	498.01	Joback Method
cpg	319.24	J/molxK	465.85	Joback Method
cpg	404.45	J/molxK	626.62	Joback Method
dvisc	0.0002847	Paxs	433.70	Joback Method
dvisc	0.0003369	Paxs	393.06	Joback Method

dvisc	0.0004143	Paxs	352.43	Joback Method
dvisc	0.0005378	Paxs	311.79	Joback Method
dvisc	0.0007548	Paxs	271.15	Joback Method
dvisc	0.0011940	Paxs	230.52	Joback Method
dvisc	0.0022984	Paxs	189.88	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=C489203&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
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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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