

1,2-Cyclobutanedicarboxylic acid, cis-

Other names:	cis-1,2-Cyclobutanedicarboxylic Acid 1,2-Cyclobutanedicarboxylic acid, (Z)-
Inchi:	InChI=1S/C6H8O4/c7-5(8)3-1-2-4(3)6(9)10/h3-4H,1-2H2,(H,7,8)(H,9,10)/t3-,4+
InchiKey:	SUSAGCZZQKACKE-ZXZARUISSA-N
Formula:	C6H8O4
SMILES:	O=C(O)C1CCC1C(=O)O
Mol. weight [g/mol]:	144.13
CAS:	1461-94-5

Physical Properties

Property code	Value	Unit	Source
gf	-490.90	kJ/mol	Joback Method
hf	-650.49	kJ/mol	Joback Method
hfus	19.78	kJ/mol	Joback Method
hvap	75.58	kJ/mol	Joback Method
log10ws	0.06		Crippen Method
logp	0.182		Crippen Method
mvol	99.420	ml/mol	McGowan Method
pc	5390.71	kPa	Joback Method
tb	635.12	K	Joback Method
tc	823.70	K	Joback Method
tf	389.06	K	Joback Method
vc	0.369	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	265.38	J/mol×K	635.12	Joback Method
cpg	300.61	J/mol×K	792.27	Joback Method
cpg	294.43	J/mol×K	760.84	Joback Method
cpg	287.84	J/mol×K	729.41	Joback Method
cpg	280.81	J/mol×K	697.98	Joback Method
cpg	273.33	J/mol×K	666.55	Joback Method
cpg	306.40	J/mol×K	823.70	Joback Method

dvisc	0.0000797	Paxs	635.12	Joback Method
dvisc	0.0001266	Paxs	594.11	Joback Method
dvisc	0.0002154	Paxs	553.10	Joback Method
dvisc	0.0003989	Paxs	512.09	Joback Method
dvisc	0.0008226	Paxs	471.08	Joback Method
dvisc	0.0019472	Paxs	430.07	Joback Method
dvisc	0.0055272	Paxs	389.06	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1461945&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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

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