

mesotartaric acid

Other names:	Meso tartaric acid
Inchi:	InChI=1S/C4H6O6/c5-1(3(7)8)2(6)4(9)10/h1-2,5-6H,(H,7,8)(H,9,10)/t1-,2+
InchiKey:	FEWJPZIEWOKRBE-XIXRPRMCSA-N
Formula:	C4H6O6
SMILES:	O=C(O)C(O)C(O)C(=O)O
Mol. weight [g/mol]:	150.09
CAS:	147-73-9

Physical Properties

Property code	Value	Unit	Source
chs	-1172.00	kJ/mol	NIST Webbook
chs	-1154.00 ± 0.20	kJ/mol	NIST Webbook
chs	-1162.67	kJ/mol	NIST Webbook
gf	-827.20	kJ/mol	Joback Method
hf	-970.53	kJ/mol	Joback Method
hfus	18.62	kJ/mol	Joback Method
hvap	103.93	kJ/mol	Joback Method
log10ws	1.55		Crippen Method
logp	-2.123		Crippen Method
mcvol	93.840	ml/mol	McGowan Method
pc	8386.00	kPa	Joback Method
tb	766.50	K	Joback Method
tc	945.33	K	Joback Method
tf	447.98	K	Joback Method
vc	0.336	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	254.68	J/mol×K	766.50	Joback Method
cpg	258.69	J/mol×K	796.30	Joback Method
cpg	262.44	J/mol×K	826.11	Joback Method
cpg	265.93	J/mol×K	855.91	Joback Method
cpg	269.18	J/mol×K	885.72	Joback Method

cpg	272.19	J/molxK	915.52	Joback Method
cpg	274.96	J/molxK	945.33	Joback Method
dvisc	0.0013755	Paxs	447.98	Joback Method
dvisc	0.0002009	Paxs	501.07	Joback Method
dvisc	0.0000424	Paxs	554.15	Joback Method
dvisc	0.0000118	Paxs	607.24	Joback Method
dvisc	0.0000040	Paxs	660.33	Joback Method
dvisc	0.0000016	Paxs	713.41	Joback Method
dvisc	0.0000007	Paxs	766.50	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=C147739&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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

Latest version available from:

<https://www.chemeo.com/cid/19-922-7/mesotartaric-acid.pdf>

Generated by Cheméo on 2024-04-19 15:16:39.705263452 +0000 UTC m=+15829048.625840767.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.