

# Trimellitic acid anhydride

<b>Other names:</b>	1,2,4-BENZENETRICARBOXYLIC ACID 1,2,4-Benzenetricarboxylic acid 1,2-anhydride 1,2,4-Benzenetricarboxylic acid anhydride 1,2,4-Benzenetricarboxylic acid anhydride-1,2 1,2,4-Benzenetricarboxylic acid, cyclic 1,2-anhydride 1,2,4-Benzenetricarboxylic anhydride 1,3-Dihydro-1,3-dioxo-5-isobenzofurancarboxylic acid 1,3-Dioxo-5-phthalancarboxylic acid 4-Carboxyphthalic anhydride 5-Isobenzofurancarboxylic acid, 1,3-dihydro-1,3-dioxo- 5-Phthalanacarboxylic acid, 1,3-dioxo- Anhydrotrimellitic acid Anhydrotrimellitic acid Benzene-1,2,4-tricarboxylic-1,2-anhydride Epon 9150 NCI-C56633 NSC 60252 TMA TMAN TRIMELLITIC ANHYDRIDE Trimellitic acid anhydride Trimellitic acid-1,2-anhydride Trimellitic acid 1,2-anhydride Trimellitic acid cyclic 1,2-anhydride benzene-1,2,4-tricarboxylic acid 1,2-anhydride
<b>Inchi:</b>	InChI=1S/C9H4O5/c10-7(11)4-1-2-5-6(3-4)9(13)14-8(5)12/h1-3H,(H,10,11)
<b>InchiKey:</b>	SRPWOOOHEPICQU-UHFFFAOYSA-N
<b>Formula:</b>	C9H4O5
<b>SMILES:</b>	O=C(O)c1ccc2c(c1)C(=O)OC2=O
<b>Mol. weight [g/mol]:</b>	192.13
<b>CAS:</b>	552-30-7

## Physical Properties

Property code	Value	Unit	Source
gf	-410.53	kJ/mol	Joback Method
hf	-594.57	kJ/mol	Joback Method

hfus	22.08	kJ/mol	Joback Method
hvap	75.88	kJ/mol	Joback Method
log10ws	-1.99		Crippen Method
logp	0.695		Crippen Method
mcvol	119.500	ml/mol	McGowan Method
pc	5087.49	kPa	Joback Method
tb	762.01	K	Joback Method
tc	1001.37	K	Joback Method
tf	385.00 ± 2.00	K	NIST Webbook
vc	0.450	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	319.10	J/mol×K	762.01	Joback Method
cpg	327.43	J/mol×K	801.90	Joback Method
cpg	335.02	J/mol×K	841.80	Joback Method
cpg	341.86	J/mol×K	881.69	Joback Method
cpg	347.93	J/mol×K	921.58	Joback Method
cpg	353.23	J/mol×K	961.48	Joback Method
cpg	357.73	J/mol×K	1001.37	Joback Method
cps	248.90	J/mol×K	298.15	NIST Webbook
hfust	10.46	kJ/mol	385.00	NIST Webbook
hfust	10.46	kJ/mol	385.00	NIST Webbook
hvapt	65.60	kJ/mol	577.00	NIST Webbook
sfust	27.20	J/mol×K	385.00	NIST Webbook

## Sources

- KDB:** <https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=994>
- McGowan Method:** <http://link.springer.com/article/10.1007/BF02311772>
- NIST Webbook:** <http://webbook.nist.gov/cgi/cbook.cgi?ID=C552307&Units=SI>
- Crippen Method:** <http://pubs.acs.org/doi/abs/10.1021/ci9903071>
- Crippen Method:** [https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)
- Joback Method:** [https://en.wikipedia.org/wiki/Joback\\_method](https://en.wikipedia.org/wiki/Joback_method)

# Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>cps:</b>	Solid phase heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hfust:</b>	Enthalpy of fusion at a given temperature
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>hvapt:</b>	Enthalpy of vaporization at a given temperature
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>sfust:</b>	Entropy of fusion at a given temperature
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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