

Trimellitic acid anhydride

Other names:	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-
	Anhydrotrimellic acid
	Anhydrotrimellitic acid
	Benzene-1,2,4-tricarboxylic-1,2-anhydride
	Epon 9150
	NCI-C56633
	NSC 60252
	TMA
	TMAN
	TRIMELLITIC ANHYDRIDE
	Trimellic acid anhydride
	Trimellic acid-1,2-anhydride
	Trimellitic acid 1,2-anhydride
	Trimellitic acid cyclic 1,2-anhydride
	benzene-1,2,4-tricarboxylic acid 1,2-anhydride
Inchi:	InChI=1S/C9H4O5/c10-7(11)4-1-2-5-6(3-4)9(13)14-8(5)12/h1-3H,(H,10,11)
InchiKey:	SRPWOOOHEPICQU-UHFFFAOYSA-N
Formula:	C9H4O5
SMILES:	O=C(O)c1ccc2c(c1)C(=O)OC2=O
Mol. weight [g/mol]:	192.13
CAS:	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	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
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	319.10	J/mol×K	762.01	Joback Method
cpg	327.43	J/mol×K	801.90	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.thermo.com/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/ci990307l
Crippen Method:	https://www.chemed.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

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

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