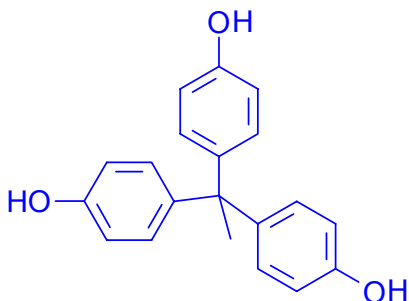


# THPE



## 1,1,1-tris-(p-hydroxyphenyl)ethane

CAS Name: Phenol, 4,4',4''-(ethylidene)tris  
 CAS Number: 27955-94-8

EP's THPE is a high purity, commercially available tri-functional phenolic. Used as a cross linking or branching agent in various polymer applications, THPE can enhance key properties including adhesion, hardness, heat resistance and solvent resistance. THPE applications include use in polycarbonates, epoxies, adhesives, coatings, and antioxidants. Branched polycarbonates derived from THPE are high molecular weight thermoplastic materials that can be fabricated into films or sheets or blow molded to prepare structured containers.

THPE can also be derivatized through esterification and etherification. Epoxy resins (tris-glycidyl ether) prepared from THPE are suitable for applications such as castings, laminates, composites and coatings requiring high mechanical strength and chemical resistance. Epoxy coatings and polymers cured with THPE exhibit excellent heat distortion temperatures, and chemical and solvent resistance. THPE modified formulations enhance the properties of high temperature

adhesive and aerospace composites and laminates, and harsh environment applications.

THPE can also be made as a low metals (ppb) Electronic Grade material (THPE-EG) suitable for use in photoactive compound (PAC) and PWB applications.

### THPE Physical Properties:

Melting Point:	245-246 °C
Molecular Formula:	C <sub>20</sub> H <sub>18</sub> O <sub>3</sub>
Molecular Weight:	306
Odor:	None
Physical Appearance:	White Powder
Vapor Pressure:	<0.1 mm Hg (20 °C)

### Specifications:

4-HAP, wt% max	0.01
Color APHA max	200
Iron, ppm max	5
Melting Point, °C	245-248
Phenol, wt % max	0.02
Purity, wt% min	99.5
Water, wt% max	0.20

Solubility of THPE in Water/Methanol				
g THPE in 100 g solvent				
Temp, °C	H <sub>2</sub> O	20 Wt%		50 Wt%
		MeOH	MeOH	MeOH
20	<0.2	0.1	5.4	85.0
60	<0.2	0.3	17.8	104.0
90	<0.2	1.1	51.0	

For additional information on deliveries, order placement and pricing, write or call us at our offices in Raleigh, NC at 919 248-5135, or by FAX at 919 248-5571

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