

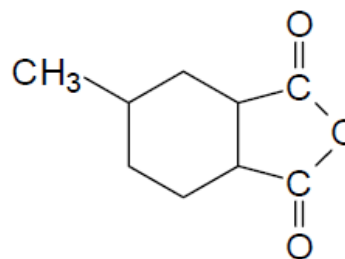
MHHPA

Methylhexahydrophthalic Anhydride

Description

MHHPA is a hardener for epoxy resins as well as a raw material for polyurethane/polyester resins. Broadview supplies the highest purity and most color stable MHHPA. It is produced by Polynt SpA. On account of its cycloaliphatic structure and the absence of double bonds, metals or contaminants, our MHHPA imparts unparalleled resistance to UV radiation and atmospheric agents. In addition, MHHPA exhibits outstanding mechanical and electrical properties, as well as excellent color retention. These characteristics make MHHPA particularly suited for electronic applications, such as high-performance LEDs and for automotive clear coats.

Chemical Name: Methylhexahydrophthalic Anhydride
 Chemical Formula: C₉H₁₂O₃
 Molecular Weight: 168
 CAS Number: 25550-51-0



Typical Applications for MHHPA Cured Epoxy Resins

- LEDs
- Outdoor High Voltage Castings and Composites
- Automotive Clear Coats
- Electronics

Specifications

| | |
|--------------------------|--------------|
| Appearance | Clear liquid |
| Color (APHA) | 20 Max. |
| % Free Acid | 0.5 Max. |
| % Purity | 99.5 Min. |
| Viscosity at 25°C | 50-70 mPa.s |
| Refractive index at 25°C | 1.479 Nd |
| Pour Point | -40°C |
| Freezing Point | -30°C |
| Boiling Point | 290°C |
| Iodine Value | 1.0 Max |
| Neutralization Value | 660 |

| Specific Gravity | g/ml |
|------------------|-------|
| @25 °C | 1.150 |
| @40 °C | 1.134 |
| @60 °C | 1.119 |
| @80 °C | 1.103 |

| Viscosity | mPa.s |
|-----------|-------|
| @25 °C | 56.5 |
| @40 °C | 24.5 |
| @60 °C | 10.6 |
| @80 °C | 6.10 |

| Vapor Pressure | Mm/Hg |
|----------------|-------|
| @120 °C | 3.0 |
| @140 °C | 8.5 |
| @160 °C | 17.0 |
| @180 °C | 36.0 |



Typical Formulation

Parts by Weight

| | |
|--|-----|
| Epoxy Resin (Epoxy Equivalent 175-210) | 100 |
| MHHPA | 85 |
| AC 8 (Broadview Accelerator) | 1 |

Properties

| | |
|--|--------|
| HDT, °C | 128 |
| Tensile Strength, psi | 11,500 |
| Flexural Strength, psi | 18,000 |
| Elongation, % | 4.5 |
| Dielectric Constant, 25°C – 60 cy | 3.3 |
| Dielectric Constant, 25°C – 10 ⁶ cy | 3.15 |

(at cure schedule 80°C / 5 hours, 160°C / 5 hours)

Packaging and Storage

MHHPA is available in zinc plated drums of 220 kg, 5 gallon pails of 45 lbs, or in bulk. Upon request, other forms of packaging can be made available. MHHPA must be stored away from open flames or other potential ignition sources, and should be protected from moisture, because it easy crystallizes when it's in contact with the humidity of the air. When some crystallization occurs, check the properties before reusing.

Shelf Life: 12 months from production date.

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