4,4’ Diamino Diphenyl Sulfone  
(Dapsone-Tech)  
Technical Data Sheet

Chemical Identity

Chemical Name : 4,4’Diamino Diphenyl Sulfone  
Synonyms : Dapsone, DDS, DADPS, 4,4’ Sulfonyldianiline  
CAS NO. : 80-08-0  
EINECS : 2012484  
Molecular Weight : 248.31  
Empirical Formula : C₁₂H₁₂N₂O₂S

Physical and Chemical Properties

Appearance : White Crystalline Powder  
Odor : Odorless  
Purity : Min. 99.5%  
Density : Apparent Density at 20°C is appx. 300 Kg/m³ (DIN 53466)  
pH (10g/l) at 20°C : 5.5 to 7.5  
Solubility : Exceedingly soluble in Alcohol, Acetone and MEK

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Test Method</th>
<th>Unit Of Measure</th>
<th>Normal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Range</td>
<td>BP 93</td>
<td>°C</td>
<td>176 to 179</td>
</tr>
<tr>
<td>Ash Content</td>
<td>BP 93</td>
<td>%</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Moisture</td>
<td>BP 93</td>
<td>%</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Assay (Dry Basis)</td>
<td>BP 93</td>
<td>%</td>
<td>99 to 100</td>
</tr>
<tr>
<td>Particle Size Analysis</td>
<td>Sympatec HELOS (H0899)</td>
<td>μm</td>
<td>1.80 to 350</td>
</tr>
</tbody>
</table>
Description

Dapsone-Tech is an aromatic hardener for di-glycidyl or tetra glycidyl ether resins which initiates resin homopolymerization at elevated temperature. Generally, following proportion of constituents are used for casting applications:

- Di-glycidyl Ether Resin: 100 parts by Wt.
- Dapsone Tech: 36 parts by Wt.
- BF₃MEA: 0.5 – 1.0 parts by Wt.

Depending upon end use of the resin matrix achieved, various combinations of these constituents by weight can be used to get the desired results. High Tₕ and HDT also can be achieved by using tetra glycidyl ether resin with 44 parts by weight of Dapsone-Tech and without the use of accelerator. Post cure heating at higher temperature also helps.

Applications

Glycidyl ether resin system cured with Dapsone-Tech imparts excellent thermal, electrical, mechanical and chemical properties to cured resin matrix. Hence, Dapsone-Tech is widely used in manufacture of

- Adhesives
- Printed circuit Boards
- Prepregs
- High Performance Coatings
- Castings
- High Temperature laminates
- Advanced Composites

Packing

Dapsone-Tech is packed in double poly liner HDPE bags, each weighing 25 Kg net. Each pallet consists of 20 bags (500 Kg net wt.).

Handling and Storage

Avoid dust formation and ensure good ventilation-suction in the workplace. Protect against electrostatic charges. Store in a cool and dry environment, well-sealed.

Please refer to Material Safety Data Sheet for information on safety and toxicity.