BLS® 1710
UV Absorber / Light Stabilizer for Plastics

Overview
BLS 1710 is a benzotriazole UV absorber, which is highly effective for the light stabilization of plastics, and is especially suited for use in PVC, styrenic polymers, unsaturated polyesters, acryics, and polyvinyl butyral. It protects the polymers from UV radiation helping to preserve the original appearance and physical integrity.

Chemistry
Chemical Name: Phenol, 2-(2H-benzotriazol-2-yl)-4-methyl-
CAS Number: 2440-22-4
Chemical Structure:

![Chemical Structure](image)

Typical Properties
Product Form: Solid
Melting Range: 128 – 132°C
Molecular Weight: 225.2 g/mol

Solubility (percent by weight, 20°C)

<table>
<thead>
<tr>
<th>Solvent</th>
<th>BLS® 1710</th>
<th>Solvent</th>
<th>BLS® 1710</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>3</td>
<td>n-Hexane</td>
<td>0.8</td>
</tr>
<tr>
<td>Benzene</td>
<td>7</td>
<td>Methyl ethyl ketone (MEK)</td>
<td>4</td>
</tr>
<tr>
<td>Butyl acetate</td>
<td>3</td>
<td>Methanol</td>
<td>0.2</td>
</tr>
<tr>
<td>Carbitol</td>
<td>2</td>
<td>Methylene chloride</td>
<td>16</td>
</tr>
<tr>
<td>Chloroform</td>
<td>13</td>
<td>Methyl methacrylate</td>
<td>5</td>
</tr>
<tr>
<td>Dioctyl phthalate</td>
<td>2</td>
<td>Mineral spirits</td>
<td>1.5</td>
</tr>
<tr>
<td>Ethanol</td>
<td>0.3</td>
<td>Styrene</td>
<td>7</td>
</tr>
<tr>
<td>Ethyl acetate</td>
<td>3</td>
<td>Water</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

Applications
BLS 1710 is useful for the light stabilization of a wide range of plastics, including PVC, styrenic polymers, unsaturated polyesters, acryics, and polyvinyl butyral. Specialty applications include adhesives, sealants, epoxy resins, and elastomers.
Advantages

- Strong absorption of ultraviolet radiation in the 300-400 nm region
- Low color contribution
- Good compatibility and solubility
- FDA cleared for use in acrylcs, PVC, polystyrene, polycarbonate, and PET

UV Absorbance Spectrum (20 mg/L in ethyl acetate)

Guidelines for Use

Typical recommended use levels range between 0.1% and 0.5% in plastics. Combinations with other light stabilizers such as HALS and benzoates often show enhanced performance. The exact formulation to be used is dependent on the substrate, performance requirements, and other factors, and should be determined by the user based on testing to simulate actual conditions of use. Please contact Mayzo for specific recommendations.

Storage

This product may be stored up to two years in a sealed container. Containers should be kept tightly closed when not in use and stored in a cool, dry place.

Safety

Please consult the Safety Data Sheet (SDS) prior to handling or using this product.

FDA Regulations

BLS 1710 has been cleared under 21 CFR §178.2010 for use in acrylic and modified acrylic plastics, rigid polyvinyl chloride and vinyl chloride copolymers, polystyrene (including rubber-modified polystyrene), polycarbonate resins, and ethylene phthalate polymers. Please contact your Mayzo representative for complete details, including restrictions of use.

The information contained herein is believed to be reliable. However, Mayzo, Inc. makes no warranty, whether expressed or implied, including warranties of merchantability or of fitness for a particular purpose, for the product or products referred to herein. No statements or recommendations contained herein are to be constructed as inducements to infringe any relevant patent, now or hereafter existence. Under no circumstances shall Mayzo, Inc. be liable for incidental, consequential, or other damages from alleged negligence, breach of warranty, strict liability, or any other legal theory, arising out of the use of handling of the product or products referred to herein. The sole remedy of the buyer and sole liability of Mayzo, Inc. for any claims shall be limited to the buyers purchase price of the product which is subject of the claim or the amount actually paid for each product, whichever is less. Technical advice furnished by seller shall not constitute a warranty, which is expressly disclaimed, all such advice being given and accepted at the buyers risk.