



Mayzo Makes It Possible

BLS[®] 5411

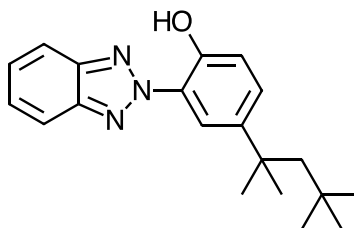
UV Absorber / Light Stabilizer for Plastics

Overview

BLS 5411 is a benzotriazole UV absorber, which is highly effective for the light stabilization of plastics, and is especially suited for use in polyesters, PVC, styrenic polymers, acrylics, polycarbonates, 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-(1,1,3,3-tetramethylbutyl)-
CAS Number: 3147-75-9
Chemical Structure:



Typical Properties

Product Form: Solid
Melting Range: 102 – 106°C
Molecular Weight: 323.4 g/mol

Solubility (percent by weight, 20°C)

Acetone	9	n-Hexane	6
Benzene	32	Methanol	0.6
Chloroform	37	Methylene chloride	38
Cyclohexane	15	Water	<0.01
Ethyl acetate	15		

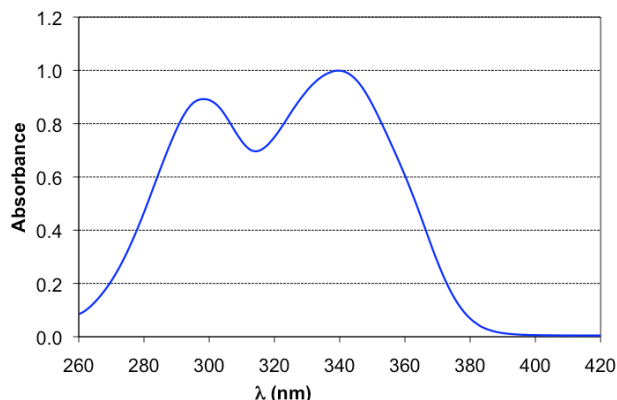
Applications

BLS 5411 is useful for the light stabilization of plastics, including in polyesters, rigid and flexible PVC, styrenic polymers, acrylics, polycarbonates and polyvinyl butyral during outdoor weathering. Typical end use applications include molded items, extruded sheets, glazing materials for window lighting, signs, marine and automotive applications. Specialty applications include coatings (polyester gel coats), photographic products, sealants, 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 polycarbonate

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, and between 0.5% and 3% in polyester gel coats. 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 5411 has been cleared for use in polycarbonate resins under 21 CFR §178.2010. Please contact your Mayzo representative for complete details, including restrictions of use.

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