BLS® 234
UV Absorber / Light Stabilizer for Plastics and Coatings

Overview
BLS 234 is a low volatile, benzotriazole-type, UV absorber, which is highly effective for polymers being processed at high temperatures. BLS 234 is especially suited for polycarbonates and polyesters. It protects the polymers from UV radiation helping to preserve the original appearance and physical integrity. It is also useful in powder coatings and solvent-based coatings.

Chemistry
- **Chemical Name:** Phenol, 2−(2H−benzotriazol−2−yl)−4,6−bis(1−methyl−1−phenylethyl)−
- **CAS Number:** 70321-86-7
- **Chemical Structure:**

![Chemical Structure](image)

Typical Properties
- **Product Form:** Solid
- **Melting Range:** 137 – 141°C
- **Molecular Weight:** 447.6 g/mol

Solubility (percent by weight, 20°C)
- Acetone 2 n-Hexane 0.6
- Benzene 10 Methanol <0.1
- Chloroform 35 Methylene chloride 34
- Cyclohexane 5 Methyl ethyl ketone (MEK) 13
- Ethanol 0.3 Toluene 20
- Ethyl acetate 4 Water <0.01

Applications
BLS 234 is especially suited for polymers processed at high temperatures, such as polycarbonates, polyesters, and others. In polyolefins, it has low volatility at high temperatures and high resistance to thermal degradation for compounding and molding applications. It is ideal for applications of high surface area, such as films and fibers. It is also useful in the light stabilization of solvent-based coatings and powder coatings.
Advantages

- Strong absorption of ultraviolet radiation in the 300-400 nm region
- Low color contribution
- Low volatility during high processing temperatures
- Good extraction resistance

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

Guidelines for Use

Typical recommended use levels in plastics range between 0.1% and 0.6%, and in coatings between 1% and 3.0% based on total solids. Combinations with other light stabilizers such as HALS and benzoates often show enhanced performance in both plastics and coatings. 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 234 has been cleared for use in polyethylene phthalate polymers and polycarbonate resins under 21 CFR §178.2010. Please contact your Mayzo representative for complete details, including restrictions of use.

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