Mayzo Makes It Possible

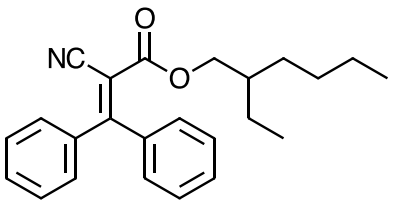
BLS® 3039

UV Absorber / Light Stabilizer for Plastics

Overview

BLS 3039 is a liquid cyanoacrylate-type UV absorber (UVA) used as a light stabilizer in plastics, adhesives, and coatings. The product is inherently non-discoloring and is also chemically non-interacting with reactive monomers and polymerization catalysts. It protects the polymers from UV radiation helping to preserve the original appearance and physical integrity.

Chemistry

Chemical Name:	2−Propenoic acid, 2−cyano−3,3−diphenyl−, 2−ethylhexyl ester
CAS Number:	6197-30-4
Chemical Structure:	

Typical Properties

Product Form:	Liquid
Freezing Point:	– 10°C
Molecular Weight:	361.5 g/mol

Solubility (percent by weight, 30°C)

Ethyl acetate	miscible	Toluene	miscible
Methanol	miscible	Water	<0.01
Methyl ethyl ketone (MEK)	miscible		

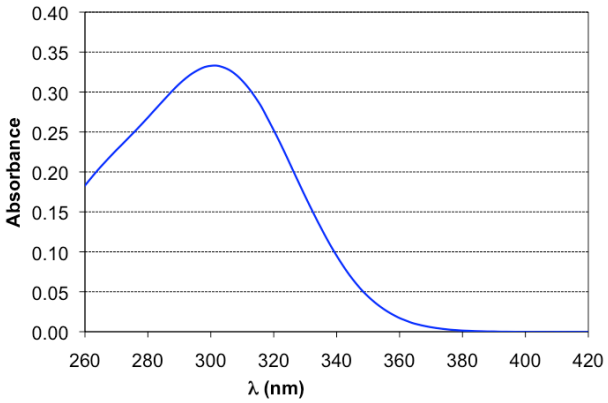
Applications

BLS 3039 is a highly effective to improve the light stability of a wide range of plastics, including PVC (flexible and rigid), polyurethanes, styrenic polymers, polyesters, polyamides, and acrylics. It is also useful as a light stabilizer in adhesives and coatings applications. Due to its inherently non-discoloring nature, BLS 3039 is ideal for use in transparent or light-colored substrates. It is also non-interacting with reactive monomers (e.g. isocyanates) and metal-based polymerization catalysts. Due to its absorption characteristics, it is also suitable for use in combination with optical brighteners.

Advantages

- Strong UV absorbance, especially in the UV-B region
- Convenient liquid form for easy handling and dosing
- Compatible with all common PVC plasticizers
- Non-discoloring in plastics, adhesives, and coatings
- Chemically non-interacting with reactive monomers and metal-based catalysts
- Suitable for use with optical brighteners due to its low long wavelength UV absorbance
- Excellent compatibility with plastics, adhesives, and coating substrates

UV Absorbance Spectrum (10 mg/L in chloroform)



Guidelines for Use

Typical recommended loading levels range between about 0.1 and 2% by weight, depending upon the substrate, processing conditions, end use, and other performance requirements. 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. Avoid storage at low temperatures (< 0°C) to prevent crystallization.

Safety

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

FDA Regulations

BLS 3039 has not been cleared by the FDA for use in food contact applications.