



BLS® 234

Ultraviolet Light Absorber

Introduction: BLS® 234 is a low volatile, benzotriazole type, ultraviolet light absorber (UVA), 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.

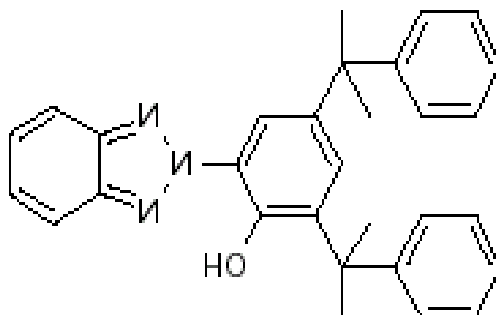
Material Description: Benzotriazole Ultraviolet Light Absorber

Chemical Name: 2-[2-hydroxy-3,5-di-(1,1-dimethylbenzyl)]-2H-benzotriazole

Empirical Formula: C₃₀H₂₉N₃O

CAS #: 70321-86-7

Chemical Structure:



Physical Properties:	Appearance:	Pale yellow powder
	Molecular Weight:	447.6
	Melting Range:	137-141°C
	Flashpoint (Ignition):	>150°C
	Percent Volatile:	< 0.5% Max
	Color of Toluene Solution:	Clear
	% Transmittance	460 nm - 95% Min 500 nm - 97% Min
	Specific Gravity:	~ 1.22 (H ₂ O = 1)
	Vapor Pressure:	2 X 10 ⁽⁻¹⁰⁾ Pa, 20°C.
	Decomposition Temperature:	> 350°C

Solubility at 20°C (g/100ml solvent):

Solvent	Solubility
Acetone	2
Benzene	10
Chloroform	35
Cyclohexane	5
Ethyl Alcohol	0.3
Ethyl Acetate	4
n-Hexane	0.6
Methanol	<0.1
Methylene Chloride	34
MEK	13
Toluene	20
Water	<0.01

Applications:

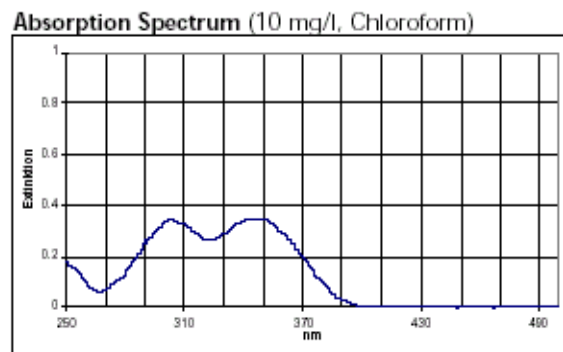
BLS® 234 is especially suited for polycarbonates, polyesters, and other polymers usually processed at high temperatures. In polyolefins, it has a low volatility at high temperatures and high resistance to thermal degradation for polyolefin compounding and molding applications. It is especially suitable for applications of high surface area, such as films and fibers.

It protects organic polymers as well as pigments from UV light. This protecting ability improves the visual performance of the polymer.

Advantages:

- Strong absorption of ultraviolet radiation in the 300-400 nm region
- The absorption maxima are 302 nm and 343 nm.
- Low initial color
- Low volatility during high processing temperatures
- Good extraction resistance

Transmission Spectrum:



Loading

Instructions:

The loading data and results are based on laboratory work (and field-testing) under controlled conditions and do not necessarily indicate the result that the buyer or user will attain. For this reason, we strongly recommend testing of your own system under the actual conditions of processing and end-use prior to full scale testing. The general recommended loading concentration range between 0.15% and 0.60% depending on the substrate and performance requirements.

Packaging: BLS® 234 is available in powder form in a 25 kg (55.1 LB) fiber drum, net weight, with an inner PE liner.

Storage: This product may be stored for one year in a sealed container. Containers should be stored in a cool, dry area. Extended storage at elevated temperatures or exposure to direct heat or sunlight could reduce product life. Keep containers sealed when not in use.

Toxicity & Safety: This material is not intended for use in products for which prolonged contact with mucous membranes or abraded skin, or implantation within the human body is specially intended, unless the finished product has been tested in accordance with the Food and Drug Administration and/or other applicable safety testing requirements. Because of wide range of such potential uses, Mayzo, Inc. is not able to recommend this material as safe and effective for such uses and assumes no liability for any such uses. Read and understand the Material Safety Data Sheet before using or handling this product.

FDA Regulations: BLS® 234 has approval for indirect food contact in most polymers. Contact your Mayzo representative for specific details.

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