



Mayzo Makes It Possible

BLS[®] 119

Hindered Amine Light Stabilizer for Plastics and Coatings

Overview

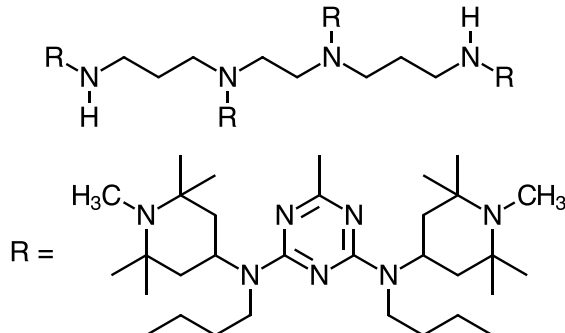
BLS 119 is a low molecular weight hindered amine light stabilizer that provides excellent light stability for thick sections, but can also be used for articles with a high surface area such as films and tapes. BLS 119 provides effective ultraviolet light protection for applications demanding particularly high light stability. Significant levels of stabilization are achieved at relatively low concentrations. When compounded, BLS 119 imparts no negative effects on a substrate's initial color, its low dust, free-flowing form makes it exceptionally convenient to handle.

Chemistry

Chemical Name: N,N',N'',N'''-tetrakis(4,6-bis(butyl-(N-methyl-2,2,6,6-tetramethylpiperidin-4-yl)amino)triazin-2-yl)-4,7-diazadecane-1,10-diamine

CAS Number: 106990-43-6

Chemical Structure:



Typical Properties

Product Form: Solid
Melting Range: 115 – 150°C
Molecular Weight: 2285.6 g/mol

Solubility (g/100 g solvent, 25°C)

Acetone	6	Methanol	1
Chloroform	>100	Toluene	94
Ethyl acetate	50	Water	<0.1
n-Hexane	7		

Applications

BLS 119 is useful for the light stabilization of polyolefins, particularly polypropylene fibers and polyethylene-based agricultural films. It can also be used for the light stabilization of styrenic polymers (ABS, ASA), polyamides (especially fibers), thermoplastic polyurethanes (TPU), polyacetal, and powder coatings.

Advantages

- Provides improved color yield in pigmented polypropylene fibers compared to conventional high molecular weight HALS
- Less interacting with agricultural chemicals than conventional HALS, leading to improved performance in agricultural films
- Less prone to “gas-fading” (warehouse discoloration) when used in combination with phenolic antioxidants than conventional HALS
- Significantly improves the long term thermal oxidative stability of polyolefins
- Less discoloring than conventional HALS in styrenic polymers (ABS, ASA)
- Excellent resistance to migration and extraction
- Low-volatility during high temperatures processing (e.g. in PP and polyamide fibers)

Guidelines for Use

In polyolefin films and fibers, recommended use levels range from 0.1 to 1.5% by weight. The exact recommendation depends on the substrate, processing conditions, and the nature of the product and end use application. BLS 119 can be used in combination with other hindered amine light stabilizers (for example BLS 1622, BLS 1770, and BLS 1880 PE), UV absorbers, benzoates (BLS 2908), as well as antioxidants and processing stabilizers such as hindered phenols and phosphites. 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 119 has been cleared for use in olefin polymers under 21 CFR §178.2010. Please contact your Mayzo representative for complete details, including restrictions of use.

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