



BLS® 1622 Hindered Amine Light Stabilizer (HALS)

Introduction: BLS® 1622 is a high molecular weight hindered amine light stabilizer. BLS® 1622 has minimal interaction with co-additives such as pigments and other stabilizers and thus is highly effective in systems using carbon black and pigmented systems. Secondary effects as an antioxidant are realized in the long-term heat stability of polyolefin systems. Areas of application include polyethylene, polypropylene, unsaturated polyester, styrenics, acrylics and vinyl polymers.

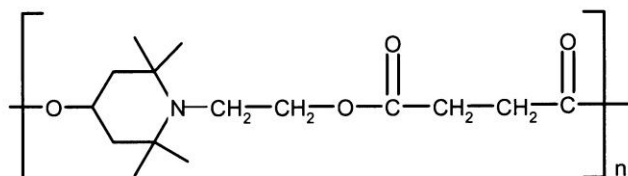
Material Description: Polymeric sterically hindered amine derivative

Chemical Name: Dimethyl succinate polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidine ethanol

Empirical Formula: $[C_{11}H_{23}NO_2 C_6H_{10}O_4]_n$

CAS #: 65447-77-0

Chemical Structure:



Physical Properties:	Appearance:	White to yellow granular powder
	Molecular Weight:	$M_n > 2500$
	Melting Range:	50-70°C
	Ash:	0.1% Max.
	Volatile Matter:	0.5% Max.
	Flashpoint:	> 250°C
	Specific Gravity:	1.18 (20°C)

Solubility at 20°C (g/100ml solvent):

Solvent	Solubility
Acetone	4.0
Chloroform	> 40.0
Ethyl Acetate	3.0
Ethanol	0.08
Methylene Chloride	> 40.0
Methanol	0.05
n-Hexane	< 0.01
Toluene	15.0
Water	< 0.01

Applications: BLS® 1622 is a polymeric HALS favorable for applications where low volatility and a low melting range are required. BLS® 1622 is highly effective in pigmented systems and systems using carbon black. Recommended substrates include: polyethylene, polypropylene, unsaturated polyester, styrenics, EVA, polyacetals, polyurethane, acrylics and engineered plastics. Typical end use applications include adhesives, sealants, elastomers, fibers and films. BLS® 1622 can be combined with other Mayzo HALS or UV absorbers to attain synergistic effects.

Advantages:

- Excellent performance in pigmented systems
- Secondary effects of long-term heat stability
- Low volatility
- Compatibility with other stabilizers

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 recommended loading concentrations range between 0.1% and 1.5% depending on substrate, processing conditions, and long-term stability requirements. Exact loading must be determined by compositions of the specific polymer system.

Packaging: BLS® 1622 is available in 25kg (55.1 pound) polyethylene bags.

Storage: Containers should be stored in a cool, dry area. Exposure to direct heat or sunlight can lead to caking and can reduce product life. This product may be stored up to one year in a sealed container.

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.

DA Regulations

<u>Existing Regulations</u>	<u>Maximum Concentration</u>	<u>Thickness</u>	<u>Food Allowed</u>	<u>Temperatures Allowed</u>
Light Stabilizer for polymers, 178.2010. Dimethyl succinate polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidine ethanol				
Olefin polymers complying with 177.1520	0.3%	No restrictions	No restrictions	212°F
Ethylene-vinyl acetate copolymers complying with 177.1350	0.3%	No restrictions	No restrictions	212°F

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