



BLS® 531

Ultraviolet Light Absorber & Stabilizer

Introduction: BLS® 531 is an ultraviolet light absorber (UVA) of the benzophenone class, imparting good light stability for plastics and other organic polymers. Due to its highly effective broad UV absorption properties and excellent polymer compatibility, BLS® 531 offers maximum polymer protection and low color contribution, retards yellowing and loss of physical properties

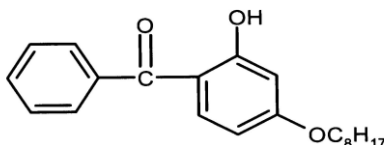
Material Description: Benzophenone Ultraviolet Light Absorber

Chemical Name: 2-Hydroxy-4-n-Octoxybenzophenone

Empirical Formula: C₂₁H₂₆O₃

CAS #: 1843-05-6

Chemical Structure:



Physical Properties:

Appearance:	Light yellow powder
Molecular Weight:	326
Melting Range:	46.5-49°C
Assay:	99% Min.
Volatile Matter:	< 0.5% Max.
% Transmittance:	440nm – 79% Min 460nm – 89% Min
Specific Gravity at 25°C	1.16 g/cm ³

Solubility at 20°C
(g/100ml solvent):

Solvent	Solubility
Acetone	43%
Benzene	72%
Chloroform	61%
Ethanol	3.5%
Ethyl Acetate	44%
n-Hexane	12%
Methanol	1.7%
MEK	65%
Methylene Chloride	67%
Toluene	> 50%
Water	< 0.01%

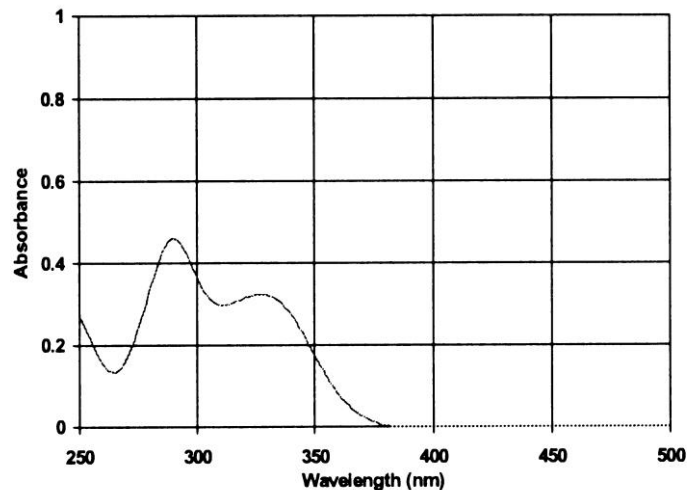
Applications:

BLS® 531 is an extremely effective UV absorber that is recommended for polypropylene, polyethylene, plasticized PVC, rubber, acrylics, polycarbonate, EVA, and polyester. BLS® 531 is also recommended for use in adhesives and sealants where light stability is a concern. When BLS® 531 is synergistically combined with a Hindered Amine Light Stabilizer (HALS) it is extremely effective in low density and linear low density polyethylene as well as ethylene-vinyl acetate copolymers for agricultural films. This synergistic combination can also be used in high density polyethylene molded articles (i.e. crates). BLS® 531 can also be used synergistically with antioxidants, phosphites, and light stabilizers.

Advantages:

- Highly compatible with a wide range of organic substrates
- Non-staining and low color contribution
- Particularly suitable for thick films, typically > 100 um and thick sections
- Low vapor pressure prevents losses during processing
- Low migration rates reduce danger of blooming
- Improvement of long-term stability
- Low volatility
- Ease of compatibility with other stabilizers

**UV Absorption Spectrum:
(10 mg/l, chloroform)**



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 concentrations range between 0.2% and 0.5% depending on substrate, processing conditions, and long-term stability requirements. Loading levels of BLS® 531 in thick sections of polyethylene range from 0.15% and 0.5%, and the loading levels in films of LLDPE, LDPE, and EVA range between 0.15% and 0.7%. Exact loading must be determined by compositions of the specific polymer system.

Packaging:

BLS® 531 is available in powder form in a 50 kg (110.2 pound) fiber drum, net weight, with an inner PE liner.

Storage:

This product may be stored up to 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:

<u>Existing Regulations</u>	<u>Maximum Concentration</u>	<u>Thickness</u>	<u>Food Allowed</u>	<u>Temperatures Allowed</u>
UV absorber for olefin polymers, 178.2010 2-Hydroxy-4-n-Octoxybenzophenone				
Olefin polymers complying with 178.2010 additives in food packaging	0.5%	no restrictions	Finished articles may be used in contact only with foods of high water content	no restrictions
Petroleum wax complying with 178.3710	0.01%	no restrictions	no restrictions	no restrictions

The information contained herein is believed to be reliable. However, Mayzo, Inc. makes no warranty, whether expressed or implied, including warranties of merchantability or of fitness for a particular purpose, for the product or products referred to herein. No statements or recommendations contained herein are to be constructed as inducements to infringe any relevant patent, now or hereafter existence. Under no circumstances shall Mayzo, Inc. be liable for incidental, consequential, or other damages from alleged negligence, breach of warranty, strict liability, or any other legal theory, arising out of the use of handling of the product or products referred to herein. The sole remedy of the buyer and sole liability of Mayzo, Inc. for any claims shall be limited to the buyers purchase price of the product which is subject of the claim or the amount actually paid for each product, whichever is less. Technical advice furnished by seller shall not constitute a warranty, which is expressly disclaimed, all such advice being given and accepted at the buyers risk.

Mayzo, Inc.
3935 Lakefield Court
Suwanee, GA 30024

Product Data Sheet
BLS® 531
www.mayzo.com

Date: 07/27/10
Supersedes: 01/12/09
Phone: (770) 449-9066