

BLS[®] 8020

Ultraviolet Light Absorber & Stabilizer Blend

Introduction:

BLS[®] 8020 is an ultraviolet light absorber (UVA) blend of the benzophenone class and the benzotriazole class, imparting good light stability for plastics and other organic polymers. Due to its highly effective UV absorption properties and excellent polymer compatibility, BLS[®] 8020 protects polymers from UV radiation helping to preserve the original appearance and physical integrity, especially for polyolefins and polyester resins. BLS[®] 8020 could be provided in a powder form, a granular form, or in a pellet form. Talk to your Mayzo representative.

Material Description:

A Benzotriazole and a Benzophenone Ultraviolet Light Absorber Blend

Chemical Name:

Benzotriazole: 2-(3'-tert-butyl-2'-hydroxy-5'-methylphenyl)-5-chlorobenzotriazole
Benzophenone: 2-Hydroxy-4-n-Octoxybenzophenone

Empirical Formula:

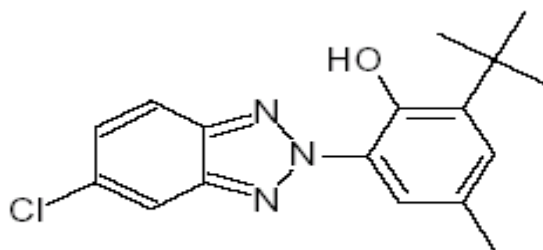
Benzotriazole: C₁₇H₁₈N₃OCl
Benzophenone: C₂₁H₂₆O₃

CAS #:

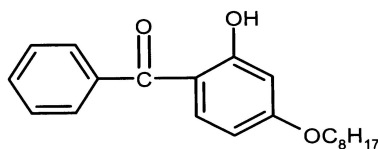
Benzotriazole: 3896-11-5
Benzophenone: 1843-05-6

Chemical Structure:

Benzotriazole



Benzophenone



Physical Properties:

Appearance:	Light yellow powder, granule, or pellet
Melting Range:	48 -141°C
Content:	Benzophenone: 20 ± 2%

	Benzotriazole: 80 ± 2%
Volatile Matter:	< 0.5% Max.
% Transmittance:	460nm – 92% Min 460nm – 95% Min
Specific Gravity at 25°C	~1.25
Decomposition Temperature:	> 300° C

**Solubility at 20°C
(g/100ml solvent):**

Solvent	Solubility
Acetone	~9%
Benzene	~23%
Chloroform	~21%
Ethanol	~0.7%
Ethyl Acetate	~10%
n-Hexane	~3%
Methanol	~0.3%
MEK	~23%
Methylene Chloride	~17%
Toluene	> 20%
Water	< 0.01%

Applications:

BLS[®] 8020 is an extremely effective UV absorber that is recommended for polyolefins, cold cured polyester, rubber, and acrylics. In polyolefins, it has a low volatility at high temperatures and high resistance to thermal degradation for polyolefin compounding and molding applications. In polyester resins, BLS[®] 8020 does not form colored complexes with metallic curing salts. It is also good with chlorinated flame-retardant polyester resins. BLS[®] 8020 is also recommended for use in adhesives and sealants where light stability is a concern.

BLS 8020 can be available in a powder, granular, or pellet form. Contact your Mayzo representative.

Advantages:

- Non-staining and low color contribution
- Low vapor pressure prevents losses during processing
- Low migration rates reduce danger of blooming
- Strong absorption of ultraviolet radiation in the 300-400 nm region
- Minimal absorption in the visible region (>400 nm) of the spec
- Good extraction resistance
- Improvement of long-term stability

**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 0.7% depending on substrate, processing conditions, and long-term stability requirements. Exact loading must be determined by compositions of the specific polymer system.

Packaging:

BLS[®] 8020 is available in powder form in a 100-lb 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:

BLS[®] 8020 has approval for indirect food contact in polyolefins. Contact your Mayzo representative for specific details.

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