DIAMOND ADDITIVE
Plastic Additives Supplier

PRODUCT DATA SHEET

Product name: Optical brightener OB-1
Chemical name： 4,4′ -Bis(2-benzoxazolyl) stilbene Product
Product characteristics：

. Appearance： yellowish green powder
. Molecular formula： $C_{28}H_{18}N_2O_2$
. Structural formula：

. Molecular Weight: 414.4

ITEM	STANDARD
Appearance	Yellow to greenish yellow powder
Particle size	≥250 mesh (calculated with d (0.9))
Fluorescent Intend ($E^{1\%}_{1cm}$)	≥2050
Content	≥99.00%
Melting point	353～359℃
Volatile content	≤0.3%
Ash content	≤0.5%
Contamination control	≤5’

Packing	Application	Transport regulations	Storage and handling
20kg drum, polyethylene inner bag.	As plastic whitening agent	No dangerous good in the sense of transport regulations	Storage cool and dry, Protect from sun, see MSDS

. Applications: OB-1 is recommended to increase the whiteness of polymers as well as high temperature engineering plastics, including polycarbonates, polyesters, and polyamides (nylon).

. Advantages: Brilliant, neutral white cast that compensates for yellowing
Low volatility and excellent heat resistant make the product ideal for use in fibers and in engineering plastics processed at high temperatures
In combination with dyes, produces particularly bright shades
Good light fastness

Technical Data Sheet

Omnistab OB -1

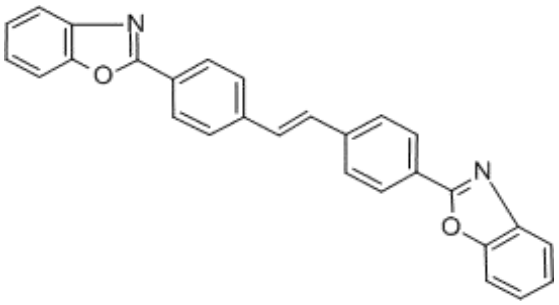
CAS No 1533-45-5

Chemical name 2,2'-(1,2-Ethenediyldi-4,1-phenylene)bisbenzoxazole

Molecular formula C28H18N2O2

Molecular weight 414.45

Molecular structure



Appearance Bright yellow crystalline powder (Fine Grade)

Specifications

TEST	SPECIFICATION	RESULTS
Content (%)	98.00min	98.50
Volatiles(%):	0.50 max	0.03
Melting Point(℃):	355.00-360.00	358.40

Polymer Add Pte. Ltd.
ISO 9001:2008 Certified Company

POLYMER	*OPTICAL BRIGHTNER*

OB 1	**Technical Datasheet**

Product Information: OB-1 is a heat resistant and chemically stable fluorescent whitener which increases whiteness and provides brighter looking colours. It is bis-benzoxazole optical brightener. This brightener offer permanence due to the solubility in fiber during polymer manufacturing. The permanence gives much better brightness retention with topical brightener.

Chemical Name	2,2'-(1,2-ETHENEDIYLDI-4,1-PHENYLENE)BISBENZOXAZOLE		
Grade Name	OB 1		
CAS No.	1533-45-5		
EINECS No.	216-245-3		
Molecular Formula	C28H18N2O2		
Synonyms	• FLUORESCENT BRIGHTENER OB-1 • FLUORESCENT BRIGHTENER 393 • 4,4'-DI(BENZOXAZOLE-2-YL)STILBENE		
TEST	**SPECIFICATION**		**METHOD**
Appearance	Form:Crystalline Powder Colour: Yellow		Visual
Purity	> 97 %		By Total Nitrogen Content
Melting Range	353 - 362 °C		Melting point apparatus (open capillary tube method)
Volatile Content	< 0.5 %		Oven drying
Ash Content	< 0.5 %		Open crucible
Solubility at 25 °C	Solvent	Solubility (gm/100ml)	Visual
	Acetone	<0.01	
	Chloroform	<0.01	
	Methanol	<0.01	
	n-Hexane	<0.01	
	Water	Insoluble	

Product Applications:

1. OB-1 is recommended to increase the whiteness of polyester and polyamide fibers as well as high temperature engineering plastics, ABS, PET, PC, PP, EVA and hard PVC.
2. It is used in styrene and acrylic polymers.
3. It is highly efficient optical brightener recommended for - Enhancing whiteness of white pigmented coatings, plastics.

Product Benifits:

1. OB-1 has low volatility and excellent heat resistant making the product ideal at high temperatures processing.
2. It is brilliant, neutral white that compensates for yellowing.
3. It produces particularly yellow shades when used in combination with dyes.

Product Dosage: We strongly recommend testing of your own system under the actual conditions of processing and end-use prior to full scale testing. Exact loading must be determined by compositions of the specific polymer systems. In general the dosage recommended for long-term thermal stability in polymer is not more than 0.03%.However individual dosage information is as follows.

Polymer Details	**Suggested dosage**
Polymers in food contact application	< 0.025 %
Polyester fiber	< 0.02 %
Pigmented coating	< 0.03 - 0.25 %
Transparent	< 0.0025 - 0.005 %

Product Handling & safety:
Please refer to our product MSDS for specific instructions on handling this product.

Product Registration:OB-1 is approved for use in food contact polymer as per the following chapter headings.

Title: 21 - Food And Drugs
Chapter: I - Food And Drug Administration, Department Of Health And Human Services (Continued)
Subchapter: B - Food For Human Consumption (Continued)
Part: 178 - Indirect Food Additives: Adjuvant, Production Aids, And Sanitizers
Subpart: C - Antioxidants And Stabilizers
Section: 178. 3297 - Antioxidants And/Or Stabilizers For Polymers

Product Disclaimer
Important : This statement supersedes any Buyers documents. Seller makes no representation, Warranty, Express or Implied, Including of Merchantability of Fitness for a particular use, or purpose.

No statement herein is to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seler be liable for incidental, consequential or indirect damanges for alleges negligence breach of warranty, strict liability, and tort or contact rising in connectoin with product(s). Buyers sole remedy and Sellers sole Liability for any claims shall be buyers purchase price. Data and results are based on controlled or lab work and must be confirmed by the buyer by testing for its indented conditions of use.

This product is not been tested for, and is therefore not recommended for, use for which prolonged contact with mucous membranes, abraded skin, or blood is intended, or fur use for which implantation within human body is intended.

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TDS of optical brightener ob-1

Product name	Optical brightener ob-1
Chemical	4,4'-bis(benzoxazol-2-yl)stilbene CAS: 1533-45-5 chemical structure: C28H18N2O2 Equivalents: Eastobrite OB-1, Uvitex OB one,FBA 393, CI 393, OBA 393
Features	optical brightener ob-1 is an universal plastic OBA. excellent brightening ability, good thermal stability, and compatibility with many polymers.
Specifications:	Ash % 0.5max Formula C28H18N2O2 Melting Point (DTA) 359-361℃ Appearance Greenish / Yellowish Powder Odor Free of odor Volatile Content % 0.5max Assay % 98.5% Particle Size 300 meshes
Application:	Suite for fibers and in engineering plastics
Handing and Safety:	FDA cleared for use in all polymers For additional handing and toxicological information, please consult us for Maternal Safety Date Sheet.
Packing:	25kg / fiber drum with PE liner,inside lining plastic bag.

COA of optical brightener ob-1

Items	Standard Value	Test Result
Appearance	Yellowish greenish crystal powder	Yellowish greenish crystal powder
Melting Point	350-370℃	364℃
Purity	≥98.5%	99.00%
Color Shade	blue	blue
Fineness	≧200 mesh	200 mesh
Water-fast Content	≦0.5%	0.24%