



# JAY KAY DYES AND CHEMICALS

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## OPTICAL BRIGHTENER OB-1

### Basic Properties

Formula	C28H18N2O2
C.I.	393
CAS No.	1533-45-5
Chemical Name	2,2'-(vinylenedi-p-phenylene)bisbenzoxazole
Chemical Composition	
Appearance	Yellowish green crystal powder
Melting Point	357-361°C
Content	≥99.0%
Volatile Content	0.5% MAX
Ash Content	0.5% MAX
Molecular Weight	414.4
Max UV Absorption Wavelength	374 nm(ethanol)
Max Optical Emitting Wavelength	343 nm
Specific Gravity (20°C)	1.35
Vapor pressure (20°C)	10E-17 mbar

**SOLUBILITY (grams per 100 ml.)**

SOLVENT	SOLUBILITY (%)
Water	<0.01
Methanol	<0.01
Acetone	<0.01
n-Hexane	<0.01
Chloroform	<0.01
N-Methyl-pyrrolidon	<1.0
1,1,1-Trichlorethane	<1.0

#### **LIGHT FASTNESS IN VARIOUS SUBSTRATES:**

SUBSTRATES	Light Fastness
PVC	4-7
PE	2-4
PP	1-4
PS	2-5
Cellulose Acetate	5-7

#### **VOLATILITY:**

TGA heating rate 200C/min in air Temperature (oC)	Volatility Weight loss (%)
300	0.2
350	2.2
400	19.4

**PROPERTY** SUBANG OB-1 is an excellent diphenylethylene bisbenzoxazole type compound. It is dissolvable in water and has stable capability. And it also has good resistance to heat, sunlight, chlorine bleaching and migration. It has an ideal whitening effect on polyester fibers as well as polyester fiber-containing fabrics including polyester-cotton blend fabric.

It can be used to whiten various kinds of plastics such as ABS, PS, HIPS, PA, PC, PP, EVA and rigid PVC. With addition of optical brightener OB-1, poly amide fiber, nylon and polyester have significantly good whiteness. Mixed with this product, recycling polyester waste material, bottle material and slice flake will have a higher whiteness than before.

**APPLICATION** SUBANG OB-1 is used in polymer fibers especially polyester and polyamide fibers. It is also widely used in PP, ABS, PS, HIPS, PA, PC, EVA, Rigid PVC etc.

**PROCEDUR 0.01%-0.05% : (10-50g add to 100 kg products)**

**PVC** white 0.01-0.05%(10-50g) transparent 0.0001-0.001%(0.1-1g)

**PS** white 0.001%(about 1g) transparent 0.0001-0.001%(0.1-1g)

**ABS** natural color 0.01-0.05%(10-50g) white 0.01-0.05%(10-50g)

**PE/PP** colorless 0.0005-0.001%(0.5-1g) white 0.005-0.05%(5-50g)

**PACKAGE** Fiber drum, carton box or plastic bag. 10kg, 20kg, 25kg per drum.

**STORAGE** Should be stored in cool,dry and ventilate place, and storage time should not exceed 2 years

