

## Optical brightener OB

## **Chemical name:** 2,5-Thiophenediylbis(5-tert-butyl-1,3-benzoxazole)

| Formula | $C_{26}H_{26}N_{2}O_{2}S \\$ |       |
|---------|------------------------------|-------|
| MW      | 430                          | N S N |
| CAS#    | 7128-64-5                    |       |

# **Specification:**

| Appearance         | Slight greenish yellow powder |
|--------------------|-------------------------------|
| Dosage             | 0.01-0.05%                    |
| Melting point      | 199-202℃                      |
| Purity             | ≥99%                          |
| Solubility         | (g/100 g solution) at 20° C:  |
| Acetone            | 0.5                           |
| Chloroform         | 14                            |
| Dimethylformamide  | 0.8                           |
| Dioxane            | 2                             |
| n-Hexane           | 0.2                           |
| Methanol           | < 0.1                         |
| Methylethylketone  | 1.3                           |
| Tricresylphosphate | 0.8                           |
| Xylene             | 5                             |
|                    |                               |

# **Application:**

# Brilliant bluish whitening effects; excellent heat resistance; high chemical stability; good compatibility in a wide range of resin

Used as an optical brightener and to offset the yellowness of a polymer and yield a whiter appearance. Can be used in thermo-plastics, coatings, printing inks, paints, dyes, manufactured fibers, synthetic leather, waxes, fats, and oils.



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Recommend indoor use only

If optical brightener OB must be used in combination with a UV absorber, the absorption spectrum of the latter must leave an open window in the near UVA for the optical brightener.

Recommended concentrations:0.02-5% depend on the application and degree of desired whiteness

# Handing and Safety:

FDA approved for use in polymers subject to the limitations in 21 CFR §176.170(c).

OPTICAL BRIGHTENER OB should be handled in accordance with good industrial practice.

For additional handing and toxicological information, please consult us for **Maternal Safety Date Sheet** 

Package: 25kg per fiber drum, 6\*2 layer 12 drum per pallet, 5CBM per ton, or per customer

requirement



# **Optical brightener OB-1**

#### Chemical name: 2,2'-(vinylenedi-p-phenylene)bisbenzoxazole

| Formula | $C_{28}H_{18}N_2O_2$ |  |
|---------|----------------------|--|
| MW      | 414                  |  |
| CAS#    | 1533-45-5            |  |

# **Specification:**

| Appearance    | yellowish or greenish<br>powder |
|---------------|---------------------------------|
| Melting point | 357-359℃                        |
| Solubility    | (g/100 g solution) at 20° C:    |
| Acetone       | < 0.1                           |
| Chloroform    | < 0.1                           |
| Hexane        | < 0.1                           |
| Methanol      | < 0.1                           |
| Water         | <0.1                            |

## Application:

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;

OB-1 is excellent oxazole type brightener, Mainly be used in whitening of polyester and plastic ABS, PS, HIPS, PA, PC, PP,EVA, rigid PVC etc., also in whitening of Nylon during polymerization.

Recommended concentrations: 0.005-0.2% depend on the application and degree of desired whiteness



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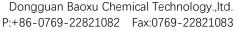
# Handing and Safety:

FDA cleared for use in all polymers

For additional handing and toxicological information, please consult us

for Maternal Safety Date Sheet

**Package:** 25kg carboard drum lined with PE bag, or per customer requirement





#### **Optical Brightener KSN**

#### Chemical name:

4.4-bis(5-methyl-2-benzoxoazol)-ethylene

| Formula | $C_{29}H_{20}N_{2}O_{2} \\$ |  |
|---------|-----------------------------|--|
| MW      | 442                         |  |
| CAS#    | 5242-49-9                   |  |

# **Specification:**

| Appearance    | Pale yellow powder |
|---------------|--------------------|
| Dosage        | 0.01-0.05%         |
| Melting point | 269-271℃           |

KSN and OB-1share similar chemical structure, while better whitening

# Application:

effect on PC and plastics than OB-1, also better compatibility than OB-1, KSN also has high temperature resistance performance, but also light and weather resistance, KSN also suitable for PA,PAN, film, injection/extraction mould whitening, a ideal effect could achieved in any processing time of synthetic polymer

# Handing and Safety:

For additional handing and toxicological information, please consult us for **Maternal Safety Date Sheet** 

**Package:** 25kgcarboard drum lined with PE bag,or per customer requirement



## **Optical brightener KCB**

# Chemical name: 1,4-Bis(benzoxazolyl-2-yl)naphthalene

| Formula | $C_{24}H_{14}N_2O_2$ | N N |
|---------|----------------------|-----|
| MW      | 362                  |     |
| CAS#    | 5089-22-5            |     |

# **Specification:**

| Appearance                     | yellow crystalline powder |
|--------------------------------|---------------------------|
| Dosage                         | 0.01-0.05%                |
| Melting point                  | 210-212℃                  |
| Purity                         | ≥99%                      |
| Maximum UV Absorption Spectrum | 370nm                     |

#### **Application:**

mainly be used in whitening of synthetic fiber and plastic products, especially good at whitening of EVA.

# Handing and safety:

For additional handing and toxicological information, please consult us for **Maternal Safety Date Sheet** 

# Package:

25kgcarboard drum lined with PE bag, or per customer requirement



## Optical brightener CBS X

#### Chemical name:

2,2'-([1,1'-Biphenyl]-4,4'-diyldi-2,1-ethenediyl)bis-benzenesulfonic acid disodium salt

| Formula | C <sub>28</sub> H <sub>20</sub> S <sub>2</sub> O <sub>6</sub> Na <sub>2</sub> | Na <sup>+</sup> | Na <sup>+</sup> |
|---------|---|-----------------|-----------------|
| MW      | 562   |                 | įs=0            |
| CAS#    | 27344-41-8  |                 |                 |

# **Specification:**

| Appearance    | Yellow powder |
|---------------|---------------|
| Water content | ≤5%           |
| Purity        | ≥99%          |

# **Application:**

High solubility:easy to formulate in all product types; No staining (pre-spot); Good photostability; Outstanding whitening ;High affinity to cellulosic fibers: high exhaustion rate, no greening after repeated washings

Mainly be used in whitening detergent, concentrated liquid detergent and water based coatings, also used foe fiber,nylon,wool, paper,cotton, T/  $\rm C$  Blends

Recommended concentrations:  $0.05{\sim}0.5\%$  depend on the application and degree of desired whiteness

# Handing and safety:

For additional handing and toxicological information, please consult us for Maternal Safety Date Sheet

**Package:** 25kg per drum, or per customer requirement



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## **Optical brightener FP-127**

#### Chemical name:

4,4'-Bis(2-methoxystyryl)-1,1'-biphenyl;

| Formula | C30H26O2   |      |
|---------|------------|------|
| MW      | 418.53     |      |
| CAS#    | 40470-68-6 | Clor |

# **Specification:**

| Appearance    | Yellow powder |
|---------------|---------------|
| Melting point | 219-221℃      |
| Purity        | ≥99%          |

# **Application:**

Optical Brightener FP-127 used in whitening of plastics such as PVC,PS,ABS,TPR,etc. but it has limited weather resistance in PE Recommended concentrations:  $0.05 \sim 0.5\%$  depend on the application and degree of desired whiteness

# Handing and safety:

For additional handing and toxicological information, please consult us for **Maternal Safety Date Sheet** 

**Package:** 25kg per drum, or per customer requirement



#### Optical brightener ER-I

#### Chemical name:

4,4'-Bis(2-methoxystyryl)-1,1'-biphenyl;

| Formula | C24H16N2   | N |
|---------|------------|---|
| MW      | 332.4      |   |
| CAS#    | 13001-39-3 | N |

## **Specification:**

| Appearance    | yellow green crystalline powder |
|---------------|---------------------------------|
| Melting point | 229-231°C                       |
| Purity        | ≥99%                            |

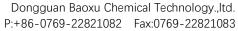
# **Application:**

>Optical Brightener ER-I used in whitening and brightening polyester fiber. It has favorable whitening and brightening agent for polyethylene, polypropylene, PVC and other plastics and products
>Recommended concentrations: 0.05~0.5% depend on the application and degree of desired whiteness

# Handing and safety:

For additional handing and toxicological information, please consult us for **Maternal Safety Date Sheet** 

**Package:** 25kg per drum, or per customer requirement





#### Optical brightener ER-I I

#### Chemical name:

4,4'-Bis(2-methoxystyryl)-1,1'-biphenyl;

Formula C24H16N2

MW 332.4

CAS# 13001-38-2

## **Specification:**

| Appearance    | yellow green crystalline powder |
|---------------|---------------------------------|
| Melting point | 184-186°C                       |
| Purity        | ≥99%                            |

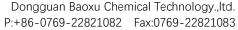
# **Application:**

>Optical Brightener ER-II used in whitening and brightening polyester, polyester/cotton, polyester/yarn, polyester/linen and other blended fabrics >Recommended concentrations:  $0.05\sim0.5\%$  depend on the application and degree of desired whiteness

#### Handing and safety:

For additional handing and toxicological information, please consult us for **Maternal Safety Date Sheet** 

**Package:** 25kg per drum, or per customer requirement





# **Optical brightener PF**

#### Chemical name:

1,2di(methyl-benziazol)ethlene

| Formula | C18H14N2O2 |  |
|---------|------------|--|
| MW      | 290        |  |
| CAS#    | 1041-00-5  |  |

# **Specification:**

| Appearance    | yellow green powder |
|---------------|---------------------|
| Melting point | 182-188°C           |
| Purity        | ≥99%                |

#### **Application:**

>Optical Brightener PF used in brightening PVC, PS, PP, polyester film,

PE, ABS, organic glass, visiting card, high quality paper ,etc.

>Recommended concentrations:  $0.05{\sim}0.5\%$  depend on the application and degree of desired whiteness

#### Handing and safety:

For additional handing and toxicological information, please consult us for Maternal Safety Date Sheet

# Package:

corrugated paper box with a liner of plastic bag. The net weight of each box is 10 kg, or according to customers' requirements.



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#### Optical brightener VBL

#### Chemical name:

Formula C36H34N12O8S2Na2

MW 872.84

NH-C C-HN-O-CH=CH-O-NH-C C-HN-O-CH
N SO<sub>3</sub>Na SO<sub>3</sub>Na SO<sub>3</sub>Na N N C1

CAS# 12224-16-7

# **Specification:**

| Appearance | yellow green powder |
|------------|---------------------|
| Purity     | ≥98%                |

# **Application:**

>Optical Brightener VBL is used in whitening and brightening cellulose fabric, paper, light colored cellulose, dial dye printing etc.

>Recommended concentrations:  $0.05\sim0.5\%$  depend on the application and degree of desired whiteness

# Handing and safety:

For additional handing and toxicological information, please consult us for **Maternal Safety Date Sheet** 

Package:

corrugated paper box with a liner of plastic bag. The net weight of each box is 10 kg, or according to customers' requirements.



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#### **Optical brightener KSB**

#### **Chemical name:**

| Formula | C <sub>26</sub> H <sub>18</sub> N <sub>2</sub> O <sub>2</sub> | H <sub>2</sub> C N N CH <sub>3</sub> |
|---------|---|--------------------------------------|
| MW      | 390   |                                      |
| CAS#    | 7128-54-5   |                                      |

**Synonyms:** Fluorescent Brightener 369 (FBA 369), C.I.369, Telalux KSB, Fluorescent Brightener

**KSB** 

# **Specification:**

| Appearance    | yellow powder |
|---------------|---------------|
| Melting Point | 237-239℃      |
| Purity        | ≥99%          |

**Application:** 

> Optical Brightener KSB is mainly used in whitening synthetic fiber and plastic products, especially good at whitening of film, EVA and PE form products.

EVA and PE form produc

# Handing and safety:

For additional handing and toxicological information, please consult us for **Maternal Safety Date Sheet** 

Package:

corrugated paper box with a liner of plastic bag. The net weight of each box is 10 kg, or according to customers' requirements.



# **Optical brightener EBF**

#### Chemical name:

| Formula | C18H10N2O2S |     |
|---------|-------------|-----|
| MW      | 318         | N   |
| CAS#    | 12224-41-8  | o s |

Synonyms: Fluorescent Brightener 185(FBA 185), C.I.185, Fluorescent Brightener EBF

#### **Specification:**

| Appearance    | yellow powder |
|---------------|---------------|
| Melting Point | 216-220℃      |
| Purity        | ≥99%          |

#### **Application:**

> Optical Brightener EBF is used in making commercialized Brightener-EB, and can also be used in various polyolefin plastics, ABS engineering plastics and organic glass to make their colour brighter and whiter.

# Handing and safety:

For additional handing and toxicological information, please consult us for **Maternal Safety Date Sheet** 

#### Package:

corrugated paper box with a liner of plastic bag. The net weight of each box is 10 kg, or according to customers' requirements.



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## **Optical brightener 4BK**

#### **Chemical name:**

Formula C40H40N12O16S4.4Na

MW 1165.05

CAS# 12768-91-1

Synonyms: Fluorescent Brightener 87(FBA 87), C.I.113, Fluorescent Brightener 4BK

# **Specification:**

Appearance yellow powder

Water <5%

Fineness (120 mesh residue):≤5%

Water insoluble content: ≤0.5%

#### **Application:**

> Optical Brightener 4BK is used in whitening cotton fabric and polyester/cotton blends. anionic, PH4.5-11, good solubility. Mainly used for the whitening of cotton, fibre and chinlon. Better effect than VBL when PH value among 4.5-7 and consumption can be reduced 15-25%.

# Handing and safety:

For additional handing and toxicological information, please consult us for Maternal Safety Date Sheet

Package:

corrugated paper box with a liner of plastic bag. The net weight of each box is 25kg, or according to customers' requirements.