OPTICAL BRIGHTENERS FOR:


<table>
<thead>
<tr>
<th>Countertype for..</th>
<th>Appl.</th>
<th>C.A.S. nr /</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bright 100 OB = Uvitex OB, Optiblanc PL</td>
<td>P, I</td>
<td>7128-64-5</td>
</tr>
<tr>
<td>3. Bright 315 OB-3 = Eastobrite OB-3</td>
<td>P</td>
<td>1533-45-5</td>
</tr>
<tr>
<td>4. Bright 2045 OB-16 = Uvitex OB-16</td>
<td>P, F</td>
<td>2397-00-4</td>
</tr>
<tr>
<td>5. Bright 1450 OBK</td>
<td>F</td>
<td>-</td>
</tr>
<tr>
<td>6. Bright 3355 OB-1,2</td>
<td>F</td>
<td>-</td>
</tr>
<tr>
<td>7. Bright 793 OB-1 = New technology OB-1</td>
<td>P</td>
<td>7128-64-5</td>
</tr>
<tr>
<td>13. Bright 5600 FGP</td>
<td>F</td>
<td>12224-12-3</td>
</tr>
<tr>
<td>14. Bright 5700 PF</td>
<td>F</td>
<td>1410 Fluorescent Brightener NT P</td>
</tr>
<tr>
<td>16. Bright 1220 Fluorescent Brightener ER-1</td>
<td>F, I</td>
<td>58449-88-0</td>
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<tr>
<td>17. Bright 1230 Fluorescent Brightener ER-II</td>
<td>F</td>
<td>-</td>
</tr>
<tr>
<td>18. Bright 1300 Fluorescent Brightener NT-1</td>
<td>F</td>
<td>13001-40-6</td>
</tr>
<tr>
<td>20. Bright 1370 Fluorescent Brightner NT-8</td>
<td>F</td>
<td>12768-92-2</td>
</tr>
<tr>
<td>22. Bright 8885 Prostab 5198</td>
<td>F</td>
<td>2226-96-2</td>
</tr>
<tr>
<td>23. Bright 8886 Blancophor DRS-200 Liq</td>
<td>F</td>
<td>-</td>
</tr>
<tr>
<td>24. Bright BMS</td>
<td>D</td>
<td>4193-55-9</td>
</tr>
<tr>
<td>25. Bright CBS</td>
<td>D</td>
<td>27344-41-8</td>
</tr>
<tr>
<td>26. Bright DMS</td>
<td>D</td>
<td>16090-02-1</td>
</tr>
</tbody>
</table>

APPLICATION:

\[
\begin{align*}
\text{Pa} & = \text{Paper} \\
\text{P} & = \text{Plastics} \quad \text{(PE / PS / PC / PVC, etc)} \\
\text{F} & = \text{Fibres} \quad \text{(Polyester / Man-made / Acrylic)} \\
\text{I} & = \text{Inks} \quad \text{(Inks / Paints / Coatings)} \\
\text{D} & = \text{Detergents}
\end{align*}
\]

Sufficient availability in our warehouse's Rotterdam / Antwerpen.

Duties for E.E.C. customers: paid already by us.

Custom Tariff number: 3204.2000.00.
PRODUCT NAME : BRIGHT 100

Chemical name : 2,2 (2,5 Thiophenediyl) Bis 5 (1,1 Dimethylethyl) Benzoxazole.
Molecular weight : 430
CAS No. : 7128-64-5

SPECIFICATIONS
Appearance : Yellowish green powder
Melting point : 196 ~ 203 °C
Ash : 0,1% max.
Volatile Content : 0,5% max.
Particle size : 200 meshes
Assay : 99% min.

PACKING : 25 kgs/fibre drum with PE liner.

APPLICATION : An optical brightener recommended for the use in a wide variety of plastics, clear lacquers, UV coating and printing inks.
**PRODUCT NAME:** BRIGHT 200

Chemical name: 2,2 (1,2 Ethenediyldi 4,1 phenylene) Bisbenzoxazole
Molecular weight: 414,4
CAS No.: 1533-45-5

**SPECIFICATIONS**

- **Appearance:** Yellowish green powder
- **Melting point:** 351 ~ 353 °C
- **Ash:** 0,1% max.
- **Volatile Content:** 0,5% max.
- **Particle Size:** 200 meshes
- **Assay:** 99% min.

**PACKING:** 10 kgs/fibre drum with PE liner

**APPLICATION:** An optical brightener for plastics (PP, ABS, EVA, PS and PC) and fibre (polyester fibre and PP fibre.)
PRODUCT NAME: BRIGHT 315

Chemical name: Diphenylethylene Bisbenzoxazole
C.A.S number: 1533-45-5
Danger class: Not dangerous

SPECIFICATIONS

Appearance: Greenish yellow crystalline powder
Specific Gravity @ 20°C/20°C: 1.39
Melting point: 357 - 359°C
Assay: 95.0 wt %
Solubility: Insoluble in water but is soluble in high boil point organic solvents such as phenyl-chloride

APPLICATION: An optical brightener for plastics (PP, ABS, EVA, PS and PC). It also has an ideal whitening effect on polyester-cotton blend fabric.
**PRODUCT NAME:** BRIGHT 2045

Chemical name: 4,4-bis (5 – Methyl – 2 – benzoxazolyl) Stilbene
Molecular weight: 442.4
CAS No.: 2397-00-4

**SPECIFICATIONS**
Appearance: Yellowish powder
Melting point: 260 ~ 264 °C
Ash: 0.3% max.
Assay: 99% min.

**PACKING:** 10 kgs/fibre drum with PE liner

**APPLICATION:** An optical brightener for plastics (PP, ABS, EVA, PS and PC) and fibre (polyester fibre and PP fibre.)
**PRODUCT NAME** : **BRIGHT 1450**

![Molecular structure](image)

Molecular formula : C28H18N2O2
Molecular Weight : 414

**SPECIFICATIONS**

Appearance : Green – Yellow crystal powder
Melting point : 228 - 230 °C
Assay : 99.5% min.

PACKING : 20 or 25 kgs net fibre drums double lined with plastic bags.

APPLICATION : Polyester fibres.
PRODUCT NAME: BRIGHT 3355

Chemical name: 4-Methyl-2,2’-(1,2-Ethylenediyldi-4,1-phenylene) Bisbenzoxazole
Molecular formula: C29H21N2O2
CAS No.: 2397-00-4

SPECIFICATIONS
Appearance: Yellowish crystal powder
Melting point: 295 ~ 297 °C
Absorption: 374 nm (Max)
Assay: 99% min.

PACKING: 25 kgs/fibre drums with PE liner

APPLICATION: An optical brightener for plastics (PP, ABS, EVA, PS and PC) and fibre (polyester fibre and PP fibre.)
PRODUCT NAME: BRIGHT 793

Chemical name: 4,4-Bis(2-benzoxazolyl)stilbene
CAS No.: 1533-45-5

SPECIFICATIONS
Appearance: Yellowish green powder
Melting point: 365 ~ 370 °C
Ash: 0.10%
Volatile Content: 0.40%
Penetration effect:
- 450nm: 95.0%
- 500nm: 97.0%

PACKING: 25 kgs/fiber drum with PE liner

APPLICATION: An improved optical brightener for plastics (PP, ABS, EVA, PS and PC) and fibre (polyester fibre and PP fibre), the whitening effect is much more efficient than OB-1
PRODUCT NAME : BRIGHT 882

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\begin{array}{c}
\text{N} \\
C \quad \text{Cl} \\
\text{CH} \quad \text{CH} \\
\text{O} \quad \text{O} \\
\end{array}
\quad = \quad
\begin{array}{c}
\text{N} \\
C \quad \text{C} \\
\text{O} \\
\end{array}
\quad \text{CH}_3
\]

Chemical name : 2,5-thiophenedlylbis(5-tert-butyl-1,3-benzoxazole)
CAS No. : 7128-64-5

SPECIFICATIONS

Appearance : Pale yellowish powder
Melting point : 201.5 ~ 202.5 °C
Ash : 0.10%
Volatile Content : 0.47%
Penetration effect : 450nm 94.2%
                 500nm 96.5%

PACKING : 25 kgs/fibre drum with PE liner

APPLICATION : Highly effective in polymer substrates such as engineering plastics e.g. polyesters, polycarbonate, polyamides and acrylis, thermoplastic polyurethane, polyvinylchloride, styrene homo- and copolymers, polyolefins, adhesives and other organic substrates.
PRODUCT NAME : BRIGHT 420

Chemical name : 1,4-Bis(2-Benzoxazoly)Naphthalene
Molecular weight : 362
CAS No. : 63310-10-1

SPECIFICATIONS
Appearance : Yellowish green crystal powder
Melting point : 210 ~ 212 °C
Ash : 0.1% max.
Volatile Content : 0.5% max.
Particle size : 200 meshes
Assay : 99% min.

PACKING : 25 kgs/fibre drum with PE liner.

APPLICATION : An optical brightener recommended for the use in a wide variety of plastics, especial EVA foamed plastics and rubber plastic, clear lacquers, UV coating and printing inks.
PRODUCT NAME: BRIGHT 444

(mixture of Bright 2280 and 1150)
C.A.S number of K.S.N.: 5242-49-9
Danger class: Not dangerous
Molecular weight: 362-426
Chemical character: Benzoxazole derive

SPECIFICATIONS
Appearance: yellow-green powder
KSN content: 80%
KCB content: 20%
Melting point: 250°C-300°C
Particle size: 200 meshes
Ash: 0.2% Max
Volatile content: 0.5% Max

PACKING: in 25kgs fibre drums within PE bags.

APPLICATION: Mainly used for synthetic high polymers at any processing stage, such as films, injection molding and compression molding materials, fibers etc.
PRODUCT NAME: BRIGHT 450

Chemical name: 2,2 -(1,2-Ethenediyl-di-4,1-phenylene) Bis-5-methyl-benzoxazole
Molecular weight: 442
CAS No.: 117313-08-1

SPECIFICATIONS
Appearance: bright yellow crystal powder
Melting point: 295 °C min
Ash: 0.1% max.
Volatile Content: 0.5% max.
Particle size: 200 meshes
Assay: 99% min.

PACKING: 25 kgs/fibre drum with PE liner.

APPLICATION: An optical brightener recommended for the use in a wide variety of plastics (PP, ABS, PS and PC) and fibre (polyester fibre and PP fibre).
PRODUCT NAME:  BRIGHT 5500

Chemical name:  4,4’-Bis[2—(2-methoxyphenyl)ethenyl]-1,1’-diphenyl
Molecular weight:  418
CAS No.:  63310-10-1

SPECIFICATIONS
Appearance:  light yellow or milk white crystal powder
Melting point:  220 ~ 221 °C
Ash:  0.1% max.
Volatile Content:  0.5% max.
Particle size:  200 meshes
Assay:  99% min.

PACKING:  25 kgs/fibre drum with PE liner.

APPLICATION:  An optical brightener recommended for the use in a wide variety of plastics, such as PVC and PP. It has an extra ideal whitening and brightening effects on artificial leathers.
PRODUCT NAME : BRIGHT 5600

Chemical name : 4,4’-bis(2,4’-cyano-phenylene)-benzene
Molecular weight : 332
CAS No. : 13001-38-2

SPECIFICATIONS
Appearance : light greenish-blue dispersed liquid
Shade : bluish neutral
PH value : approx.7.5 in 1% solution
Solubility : miscible with water in all proportion
Stability : stable in sodium hypochlorite and hydrogen peroxide liquors
Whitening strength : 300%

PACKING : 25 kgs plastic drums.
APPLICATION : An optical brightener recommended for the use to whiten and brighten polyester fibres and blends of polyester with other fibers in dyeing and printing.
PRODUCT NAME : BRIGHT 5700

Molecular formula : C18H14N2O2
Molecular weight : 290

SPECIFICATIONS

Appearance : Yellow crystal powder
Melting point : 182 – 188 C
Solid content : 99,5 % min.
Finessness : 100 meshes Max.

APPLICATION : Polyester fibres.
PRODUCT NAME: BRIGHT 1210

Chemical name: Benzene-4,4’-bis[ 2- (cyanophenyl) ethenyl]
Molecular Formula: C24H16N2
Molecular Weight: 332
CAS No: 13001-39-3

SPECIFICATIONS:

Appearance: Yellowish green powder
Assay (HPLC): 99.0 % min.
Melting point: 227 °C min.
Volatile content: 0.5 % max.

PACKING: 25 Kgs net/fibre drums.

APPLICATION: As a highly efficient optical brightener for polyester fibres, textiles, lacquers, printing inks and man-made fibres.
PRODUCT NAME : BRIGHT 1220

![Chemical Structure](image)

Chemical name : 1,4-Bis (cyano Styryl) Benzene
Molecular Formula : C24H16N2
Molecular Weight : 332
CAS No. : 58449-88-0
C.I. No. : 40705

SPECIFICATIONS

Appearance : Yellowish crystal powder.
Melting point : 230 - 234 °C
Assay : 99% min.

PACKING : 20 or 25 kgs net fibre drums double lined with plastic bags.

PROPERTIES : Fluorescent Brightener Bright 1220 is ideal at using into synthetic fibre for obtaining brightening effect. It is also good at applying into PVC, PE, PP, PS, etc.

TYPICAL FEATURE : Convenient and effective

APPLICATION

Normal dosage : 0,1 - 0,4 % in fibre products
Whitening Temperature : 130 °C Duration : 30 min.
Absorbing Temperature : 190 °C Duration : 30 min.
Oven Drying Temperature : 190 °C Duration : 30 S.
**PRODUCT NAME : BRIGHT 1230**

![Chemical Structure](image)

Chemical name: Benzene-4,4’-bis[2-cyanophenyl) ethenyl]
Molecular Formula: C24H16N2
Molecular Weight: 332

**SPECIFICATIONS**

Appearance: Light green yellowish crystal powder.
Melting point: 182 - 184 °C
Assay: 99% min.

PACKING: 10 kgs net fibre drums double lined with plastic bags.

PROPERTIES: Fluorescent Brightener. Bright 1240 is ideal at using into Dacron for obtaining brightening effect.

TYPICAL FEATURE: Convenient and effective

**APPLICATION**

Normal dosage: 0.1 - 0.4 % in fibre products
Whitening Temperature: 130 °C Duration: 30 min.
Absorbing Temperature: 190 °C Duration: 30 min.
Oven Drying Temperature: 190 °C Duration: 30 S.

**SAFETY AND STOCK**

Keeping in stock as ordinary chemicals. Wear protective goggles and gloves while applying. Avoid direct contact with skin and eyes. Soap clean if skin contaminated.

**PRODUCT NAME : BRIGHT 1300**
Chemical name : 4,4’-bis(2,2’-cyano-phenylene)-benzene
Molecular weight : 332
CAS No. : 13001-40-6

SPECIFICATIONS
Appearance : light grass greenish-yellow dispersed liquid
Shade : reddish neutral
PH value : approx. 7.5 in 1% solution
Solubility : miscible with water in all proportion
Stability : stable in sodium hypochlorite and hydrogen peroxide liquors
Whitening strength : 330%.

PACKING : 25 kgs plastic drums for liquid.
APPLICATION : An optical brightener recommended for the use to whiten and brighten polyester fibres and blends of polyester with other fibers in dyeing and printing.
PRODUCT NAME : BRIGHT 1320

Chemical name : diphenylethylene triazine type
Molecular weight : 1165
CAS No. : 16470-24-9

SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>Powder</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>light yellow powder</td>
<td>brownish yellow</td>
</tr>
<tr>
<td>E Value (Whitening Strength)</td>
<td>100% of the standard agent</td>
<td>slightly different from the standard agent</td>
</tr>
<tr>
<td>Shade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH value (1% solution)</td>
<td>8-9</td>
<td>7-8</td>
</tr>
<tr>
<td>Moisture content</td>
<td>≤ 5%</td>
<td></td>
</tr>
<tr>
<td>Content of insoluble impurities</td>
<td>≤ 0.5%</td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
<td>45-50M.Pa.S</td>
</tr>
<tr>
<td>Fineness (quantity of residue on sieve having 180um meshes)</td>
<td>≤ 10%</td>
<td></td>
</tr>
</tbody>
</table>

PACKING : 25 kgs/fibre drum with PE liner for powder and 25kg plastic drums for liquid.

APPLICATION : An optical brightener recommended for the use to whiten and brighten cotton, viscose and cellulose fibres or their blends with synthetic fibres in dyeing and printing.
**PRODUCT NAME**: BRIGHT 1370

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>diphenylethylene triazine type</th>
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<tbody>
<tr>
<td>Molecular weight</td>
<td>960.5</td>
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<tr>
<td>CAS No.</td>
<td>12768-92-2-24-9</td>
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**SPECIFICATIONS**

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<thead>
<tr>
<th></th>
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<td>Appearance</td>
<td>light yellow powder</td>
<td>brownish yellow liquid</td>
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<tr>
<td>E Value (Whitening Strength)</td>
<td>100% of the standard agent</td>
<td>slightly different from the standard agent</td>
</tr>
<tr>
<td>Shade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH value (1% solution)</td>
<td>9-10</td>
<td>7-8</td>
</tr>
<tr>
<td>Moisture content</td>
<td>≤ 5%</td>
<td>------</td>
</tr>
<tr>
<td>Content of insoluble impurities</td>
<td>≤ 0.5%</td>
<td>------</td>
</tr>
<tr>
<td>Viscosity</td>
<td>------</td>
<td>45-50M.Pa.S</td>
</tr>
<tr>
<td>Fineness (quantity of residue on sieve having 180um meshes)</td>
<td>≤ 10%</td>
<td>------</td>
</tr>
</tbody>
</table>

**PACKING**: 25 kgs/fibre drum with PE liner for powder and 25kg plastic drums for liquid.

**APPLICATION**: An optical brightener recommended for the use to whiten and brighten cotton, polyamide, wool or silk, viscose and cellulose fibres or their blends with synthetic fibres in dyeing and printing.
**PRODUCT NAME** : **BRIGHT 8885**

Chemical name : 4-Hydroxy Tempo, free radical.

This material is an inhibitor used in the production of acrylic polymer, metacrylic acid ester, acrylic acid, acrylnitrile, phenylethylene and butadiene. This inhibitor is better than phenol, acrylamine, ether, quinone and nitro compound. It can be dissolved in solvents of alcohol, diethyl ether, benzene and ester, though not in water.

Chemical formula:

```
      OH
     / \    
    /   \   
   /     \  
  H3C   H3C  
     /     |
    /      O
   /       |
  N-------|
  \       |
   \      |
    \     |
     \    
     CH3  
```

Molecular formula : C9H18NO2
Molecular weight : 172.25
CAS No. : 2226-96-2

**SPECIFICATIONS**

Appearance : Tangerine colour needle-like crystal
Melting point : 69 ~ 71 °C
Assay : 99 %
Packing : 50 KILO NET / FIBRE DRUMS

**APPLICATION** : Intermediate material for synthesis or organic chemicals.
PRODUCT NAME : BRIGHT 8886

SPECIFICATIONS
Appearance : yellowish liquid
Chemicals character : pyrazoline derivative
Dilutability : can be diluted in any ratio in weakly acid field
pH (1% dilution) : 2-4
Density at 20°C : 1.05g/cm³
Ionic character : cationic
Storage stability : ca.1 year in closed container at room temperature

Stability of solutions to
   Hardness forming salts  good
Stability in bleaching liquors
   Chlorite bleach  not stable
   Reduction bleach  good
   Perborate  good
F value (saturation factor) : 0.35
PRODUCT NAME : BRIGHT BMS

Chemical name : Diphenylethylene triazine type
Molecular weight : 960.5
CAS No. : 4193-55-9

SPECIFICATIONS
Appearance : light yellow powder
Shade : bluish neutral
PH value : approx.8 in 1% solution
Solubility : 50g/L in water at 98°C
Stability : stable to alkali and peroxide under conditions usually encountered in household and commercial laundring liquors
Whitening strength : 200%.

PACKING : 25 kgs fibre drums.
APPLICATION : An optical brightener recommended for the use in laundry detergent, soap, washing powder, bar.
PRODUCT NAME: BRIGHT CBS

Chemical name: 4,4'-bis(2-sodium sulfonate styryl) biphenyl  
molecular formula: C_{28}H_{20}O_{6}S_{2}Na_{2}

SPECIFICATIONS
Appearance: Bright yellow-green crystalline powder  
Solubility: 25g/1000ml in 25°C cool water  
300g/1000ml in 95°C hot water  
Maxim UV absorption  
Wavelength: 348-350mm  
Strength: 1003 of the standard  
Shade: Similar to the standard  
Insolubility in water: <0.5%
PRODUCT NAME : BRIGHT DMS

Chemical name : diphenylethylene triazine type
Molecular weight : 924.92
CAS No. : 16090-02-1

SPECIFICATIONS
Appearance : white free-flowing, low-dust granules
Shade : blue-ish neutral
PH value : approx.8 in 1% solution
Solubility : 5g/L in water at 98℃
Stability : stable to alkali and peroxide under conditions usually encountered in household and commercial laundrying
Whitening strength : 200%.

PACKING : 25 kgs fibre drums.
APPLICATION : An optical brightener recommended for the use in laundry detergent, soap, washing powder, bar.