

Technical Data Sheet

CFF-X-01

General Description

- Ultra-violet responsive water-soluble fluorescent dye for water-based formulations.
- Fluorescent brightener 220.

Applications

- UV Blue tracer for counterfeiting, security, leak detection and product identification.

Product Features

- CFF-X-01 is relatively invisible in normal daylight but produces a highly visible bright and vibrant blue color upon exposure to ultra-violet or "black" light.
- Popular for security and tracing applications like counterfeit protection, product identification and process automation.
- CFF-X-01 is completely water soluble and will not exhibit a noticeable particle size, upon dissolution.
- For aqueous formulations, the use of preservatives is recommended. The right preservative package (combination of bactericides and fungicides) should provide reliable, highly effective control of microorganisms in the intended formulation.

Standard Color

Product Name	Description
CFF-X-01	UV Blue

Characteristics

Chemical type	Stilbene
C.I. No.	40623
C.I. Name	FB 220
CAS	16470-24-9
EINECS	240-521-2

Packaging:

Box = 1kg
 Box = 5kg
 Box = 20kg
 Box = 20kg

MOQ = 1kg

Storage & shelf life:

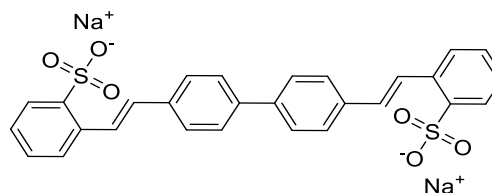
120 months when kept in closed original packaging in a dry place at ambient temperature.

Safety & regulatory:

Safety Data Sheet available on request.

Physical properties	
Appearance	Yellow powder
Hue under UV light	Bright Blue
Mol. Formula	C ₄₀ H ₄₄ N ₁₂ O ₁₆ S ₄ Na ₄
Mol. Weight	1168,2
Hiding power	Transparent
Melting point	>300°C
pH range	4 - 10

Chemical Structure



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Solubility

Solvent	Solubility
Water	+++
IPA	-
Ethanol	-
Acetone	-
MEK	-

Solubility	Evaluation	g/100ml
+++	High	5
++	Good	1
+	Limited	0,1
-	Low	< 0,1

Test method

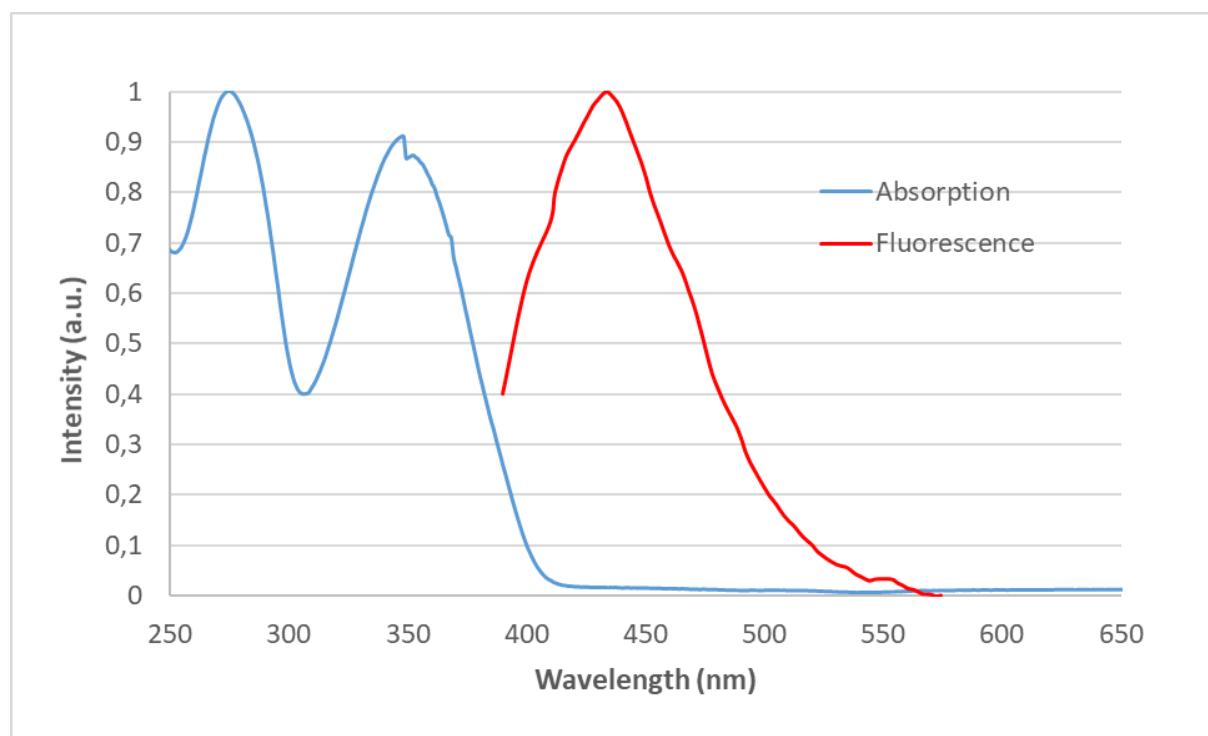
The solubility of three dye concentrations (5g, 1g and 0,1g) is tested in 100ml of the listed solvents at room temperature. After stirring 30 minutes, the solubility is visually evaluated.

As a formulation contains mostly different solvents, it is impossible to generalize. We recommend checking the solubility of the fluorescent dye in your formulation.

Absorption and Fluorescence

Absorption: λ -max (0,01% in H₂O) = 275nm

Fluorescence: λ -max (0,01% in H₂O) = 433nm (excitation at 350 nm)



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