

**Product number: KS-370**

**Product name: 330–405 nm Fluorescence Lifetime Standard**

## General Data

- Solubility:** Water, Alcohol, DMF
- Insoluble:** Benzene, Toluene
- Storage:** Store in absence of light, desiccate and refrigerate

## Description

- Fluorescence lifetime standard for the excitation range between 330 and 405 nm.

## Applications

- Calibration of instrumentation for fluorescence lifetime measurements.

## Advantages

- Perfectly suited for excitation with 350–380-nm LEDs and diode lasers
- Large Stokes' shift

## Spectral Data

Solvent System	Excitation Range [nm]	Emission Range [nm]	Quantum Yield [%]	Fluorescence Lifetime at 25 °C [ns]
Phosphate buffer pH 7.4; water	330–405	450–550	86 <sup>1</sup>	3.18±0.04 <sup>2</sup>

<sup>1</sup> Excitation at 355 nm.

<sup>2</sup> ISS Chronos BH, vs. Ludox, water,  $\lambda_{\text{ex}} = 405$  nm laser,  $\tau = 3.14 \pm 0.01$  ns,  $\chi^2 = 1.12$ ;  
ISS Chronos FD, phosphate buffer pH 7.4,  $\lambda_{\text{ex}} = 370$  nm LED,  $\tau = 3.20$  ns;  $\chi^2 = 1.15$ ;  
ISS Chronos BH, vs. Ludox, water,  $\lambda_{\text{ex}} = 370$  nm LED,  $\tau = 3.20 \pm 0.01$  ns,  $\chi^2 = 1.22$ .

## Sample Preparation

The standard is supplied as a solid in a 7 mL vial and needs to be dissolved directly in the original vial with 4 mL of distilled or deionized water. For measurement the solution is then transferred to an optical cuvette using a syringe filter, e.g. 0.45 mm GHP ACRODISC (PALL), (not included). Do not store these solutions for an extended period of time.