

# Product Data Sheet

Date of Issue: 22 Feb 2019

## 1. Product Information

- Product Name : Flamma® 648 Vinylsulfone
- Catalog Number : PWA1215
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Blue Solid
- Storage Conditions : Protect from Light at 4 °C

## 2. Additional Information

- Fluorophore Label : Flamma® 648
- Reactive Group : Vinylsulfone
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula :  $C_{39}H_{51}N_3O_9S_3$
- Molecular Weight : 802 g/mol
- Excitation<sub>Max</sub> : 648 ± 3 nm
- Emission<sub>Max</sub> : 663 ± 4 nm
- Extinction Coefficient :  $\geq 227,000$  /cm·M

## 3. Description

Flamma® Fluors 648 Vinylsulfone is pH insensitive reactive form of red dye that used to generate a stable fluorescence signal in bioimaging. Vinylsulfone reactive group, developed by BioActs' leading technology, is stable in a wide range of pH and at the high temperature. The maxima of Ex/Em values are at 648/663 nm, similar to that of Alexa 647, Cy5, ATTO 647N and DyLight 650. Flamma 648 might be excited using 593 or 633 nm laser line and displays excellent optical property. Flamma 648 can be conjugated to low-abundance of biomolecules with great sensitivity and high d/P ratio, enabling sensitive detection. Vinylsulfones readily react with primary amines of amino-modified oligonucleotides or of proteins to form a stable amino linkage between dye and the biomolecule. We offer Flamma 648 Vinylsulfone for labeling of antibodies, peptides, proteins, ligands and amplification substrates optimized for cellular labeling and detection.