

# Product Data Sheet

Date of Issue: 7 Oct 2021

## 1. Product Information

- Product Name : Flamma® 749 Vinylsulfone
- Catalog Number : PWA1308
- Packing Unit : 1 mg / 5 mg / 25 mg
- Appearance : Green Solid
- Storage Conditions : Protect from Light at 4 °C

## 2. Additional Information

- Fluorophore Label : Flamma® 749
- Reactive Group : Vinylsulfone
- Reactive Toward : Primary amine on proteins and ligands, amine-modified oligonucleotides
- Molecular Formula :  $C_{41}H_{53}N_3O_9S_3$
- Molecular Weight : 828.07 g/mol
- Excitation  $_{Max}$  :  $749 \pm 3$  nm
- Emission  $_{Max}$  :  $774 \pm 4$  nm
- Extinction Coefficient :  $\geq 200,000$  /cm·M

## 3. Description

Flamma® Fluors 749 Vinylsulfone is pH insensitive reactive form of near infrared (NIR) fluorescent dye induced from cyanine structure and used to generate a stable fluorescence signal in bioimaging. The maxima of Ex/Em values are at 749/774 nm, similar to that of Alexa 750, Cy7, IRDye 750 and DyLight 755. Flamma 749 might be excited using 750 nm laser line or dye-pumped laser excitation and the emission occurs at biological tissue permeable NIR region. Flamma 749-conjugated primary and secondary antibody are used as molecular probes for in vitro imaging and other fluorescence detection methods. 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 Fluors 749 dye for labeling of antibodies, peptides, proteins, ligands and in vivo NIR imaging.