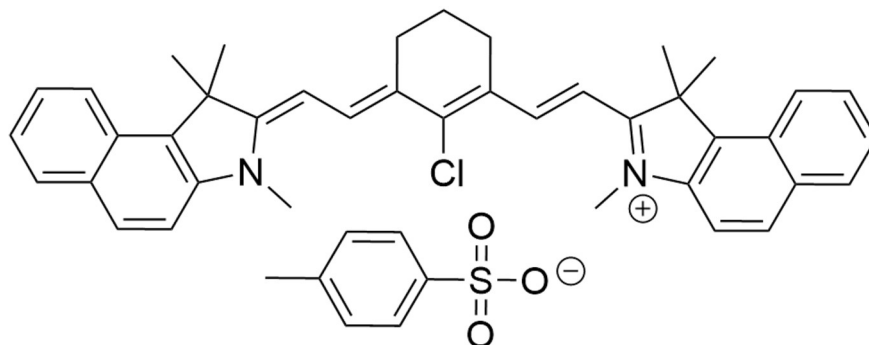


## IR 813 Tosylate FP 5192

### General

IR 813 is a near-infrared (NIR) cyanine sensitizing dye designed to increase the energy absorption outside the normal range of the photoinitiator. This increases the effective spectral range, transferring this energy to the photoinitiator. This is especially effective with HABIs.

### Chemical Structure



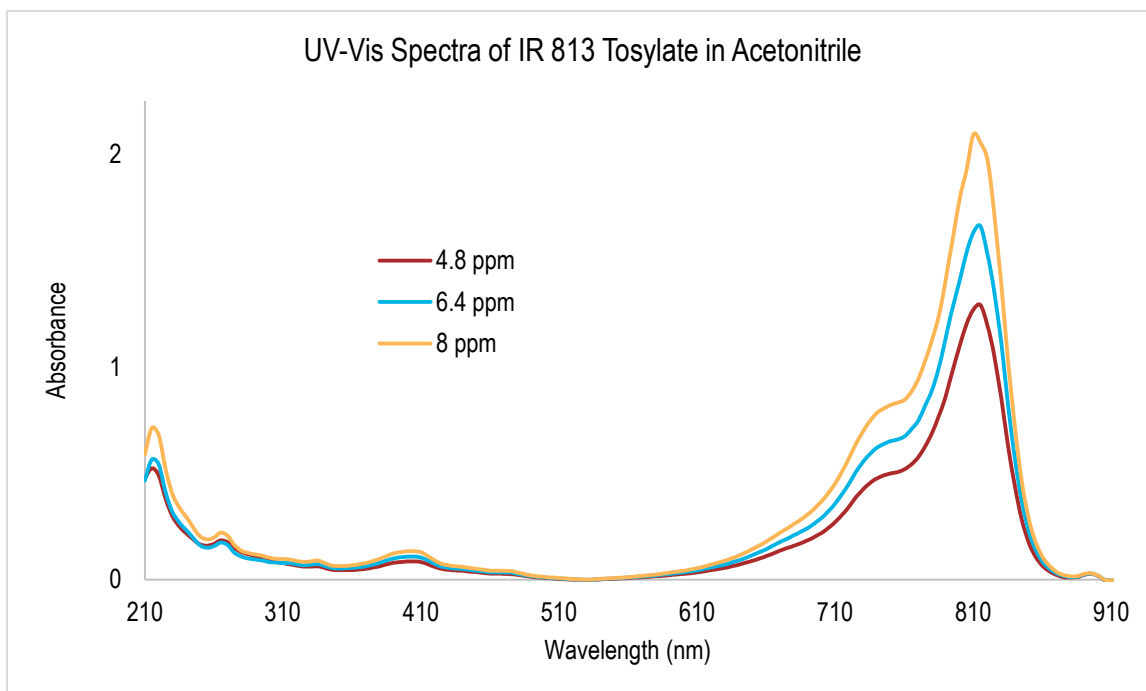
### Product Information

|                |  |
|----------------|--|
| Product Type:  | NIR Sensitizer; Sensitizing Dye; Heat Sensitive Dye  |
| CAS Number:    | 134127-48-3  |
| Chemical Name: | 1 <i>H</i> -Benz[e]indolium, 2-[2-[2-chloro-3-[2-(1,3-dihydro-1,1,3-trimethyl-2 <i>H</i> -benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, 4-methylbenzenesulfonate (1:1)             |
| Synonyms:      | 1 <i>H</i> -Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2 <i>H</i> -benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) |
| Applications:  | Lithographic Printing; Computer to Plate Laser Applications;   |
| Key Features:  | Photosensitizer; NIR Absorbance; Pairs well with HABIs   |

### Typical Properties

|                   |                       |
|-------------------|-----------------------|
| Appearance:       | Granular Red Metallic |
| λ Max:            | 813 nm                |
| Melting Point:    | 201°C (Capillary)     |
| Molecular Weight: | 755.41g/mole          |

## Absorption Spectrum



## Safety and Handling

Keep the container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents. Handle in a well-ventilated area with suitable protective equipment. Use local exhaust if dust will be generated.

IR 813 is sensitive to light and heat. Exposure to sunlight should be avoided.

Detailed information is provided in the SDS.

For additional information visit our website [www.hampfordresearch.com](http://www.hampfordresearch.com).