

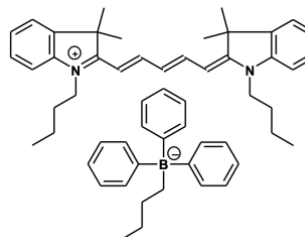
Product Description

Name: 3H-Indolium, 1-butyl-2-[5-(1-butyl-1,3-dihydro-3,3-dimethyl-2H-Indo-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-, (T-4)-butyltriphenylborate (1-)

CAS # 941694-83-3

Formula: C₅₅H₆₇BN₂

Synonyms: 1,1'-dibutyl-3,3,3',3'-tetramethylindodicarbocyanine butyltriphenyl borate, blue carbocyanine borate, H-Nu 640



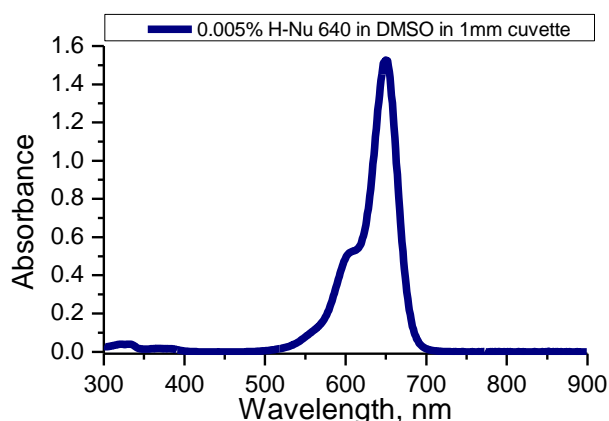
- H-Nu 640 can cure a wide range of acrylate resins via **free-radical** mechanism.
- H-Nu 640 is a commercial photoinitiator with a broad absorbance range of 570 nm to 670 nm ($\lambda_{\max} = 649\text{nm}$ in DMSO).

Advantages

- ✓ Good solubility in a variety of monomers
- ✓ Capable of curing a wide range of acrylates via free-radical mechanism
- ✓ Cure with red source (red handheld lasers and laser diodes)
- ✓ Cure through colored substrates (e.g. a red taillight assembly)
- ✓ Initiator bleaching (blue to pale/no color) upon light interaction can act as cure indicator (Borate V enhances cure and bleaching)

Typical Properties

Property	Test Method	Typical Value
Absorbance Maximum	UV Visible spectroscopy	649 nm
Appearance	Visual	Dark Blue Powder



Applications Recommendations

- ✓ The recommended starting level of H-Nu 640 ranges from 0.05 to 1 wt.% in relation to the total amount of resin in a formulation.
- ✓ **Borate V** co-initiator at a 1:1 weight ratio is not required but will increase the cure speed and overall bleaching of the initiator in many formulations, so it is highly recommended.
- ✓ The H-Nu 640 is quite soluble in most acrylate resins, but it is recommended to predissolve photoinitiator and the Borate V (poor solubility in acrylates) in DMAA (N,N-Dimethylacrylamide, 2-3%) for ease of incorporation into your formulation.

Disclaimer

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