



Hampford Research INC
Handcrafted Solutions For A High-Tech World

2-CARBOXY HABI

Water soluble, free radical photoinitiator

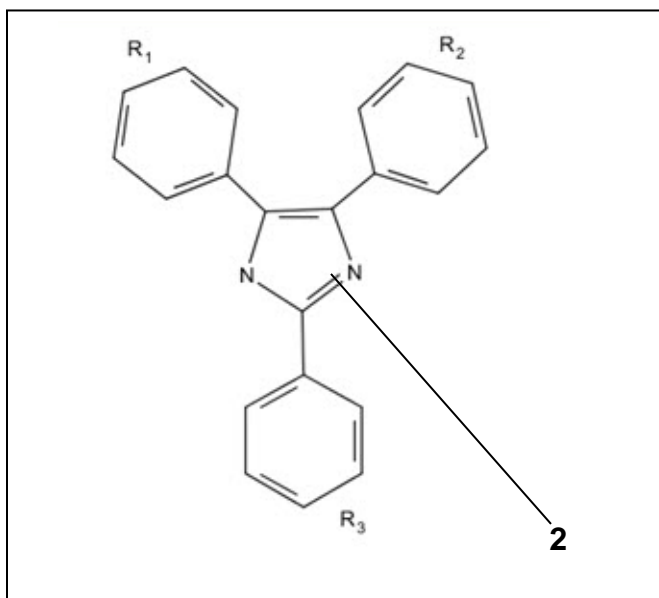
FP5388

General

For over 30 years, Hampford Research Inc. has manufactured free radical photoinitiators based on the hexaaryl-biimidazolyl (HABI) molecule. Through careful optimization of the substituents on the aryl groups, HRI has been able to design improved spectral absorption and solvent solubility characteristics into the HABI molecule. These innovative new compounds generate stable lophyl radicals and offer resistance to oxygen inhibition that HABI's are known for.

The 2-CARBOXY HABI is an example of modifying the HABI solubility. It differs from other HABI photoinitiators in that it combines high water solubility (up to 10% by weight) with outstanding photo speed. This unique compound is suitable for all water-based applications cured with either broadband or LED lamps.

HABI structure

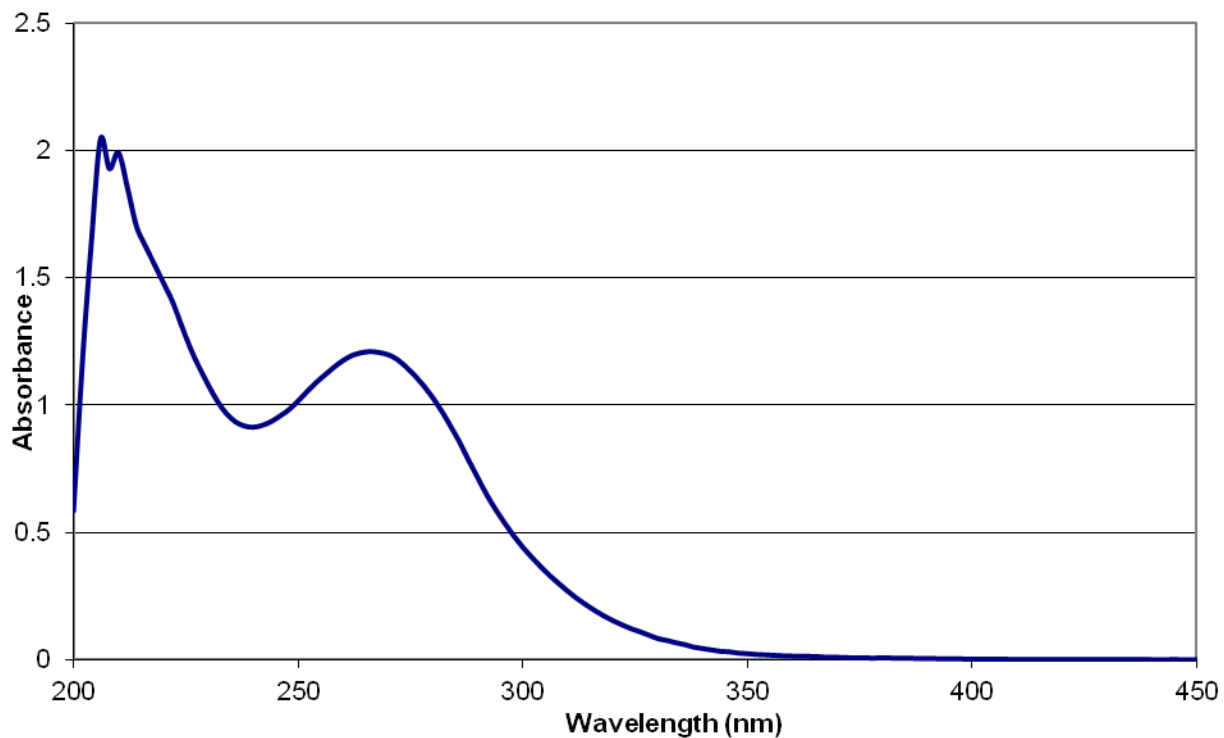


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Product information

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| PRODUCT TYPE: | Free radical photoinitiator |
| PRODUCT NAME: | 2-CARBOXY HABI |
| CAS NO. | 2243458-25-3 |
| APPLICATIONS: | Photoresists, Coatings, Graphic Arts Imaging |
| SHELF LIFE: | 1 year when stored indoors at 25 (+/- 5) deg C |

Absorption Spectrum



Packaging: 25 kg fiber drum (16" dia x 27.5" h)

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Usage recommendations:

All HABI photoinitiators operate via a Norrish II type reaction mechanism, meaning they must be combined with a suitable co-initiator in order to attain complete photo-polymerization. The two most commonly used products are N-Phenyl Glycine* (FP5360) or 2-MBO (FP5260), however each of these has limited water solubility. For aqueous formulations with 2-CARBOXY HABI, a water soluble co-initiator such as Triethanolamine should be used at a concentration of 0.1-0.5% by weight.

* N-Phenyl Glycine contains some free acid, and should be neutralized with a suitable alkaline material to improve water solubility.

Safety and Handling

2-CARBOXY HABI should be handled in accordance with good industrial practice. Detailed information is provided in the SDS.

2-CARBOXY HABI is sensitive to visible light and any exposure to sunlight should be avoided.