Hampford Research INC
Handcrafted Solutions For A High-Tech World

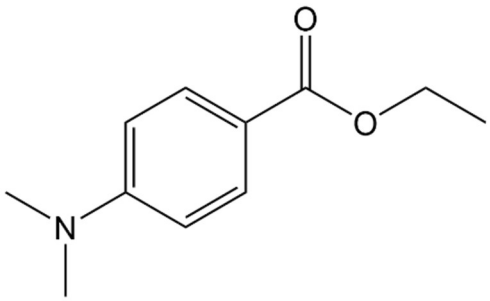
Ethyl-4-dimethylaminobenzoate (EDAB)
FP5170

General

Ethyl 4-(dimethylamino)benzoate (EDAB) is a tertiary amine synergist. EDAB is typically used in combination with Norrish type II photoinitiators, such as Camphorquinone, and can significantly reduce oxygen inhibition in UV and LED systems. This process involves the transfer of the electron from the amine to the ketone, followed by the proton's abstraction from the amine to the ketone. EDAB has little to no co-polymerization within acrylate systems.

Hampford Research's unique synthesis method and strict quality control assures end users of consistent, high performance.

Chemical Structure



Product Information

Product Type:	Tertiary Amine Synergist, Coinitiator
CAS Number:	10287-53-3
Product Name:	Ethyl-4-(dimethylamino)benzoate
Synonyms:	EDAB; EDMAB; Benzoic acid, 4-(dimethylamino)-, ethyl ester; 4-(Dimethylamino)benzoic Acid Ethyl Ester
Applications:	Dental Restoration
Key Features:	High Purity; Tertiary Amine; Pairs with Type II Photoinitiators; Reduced Oxygen Inhibition

Typical Properties

Appearance:	White to Light Tan Powder
Purity:	99% Minimum
Melting Point:	62 - 66°C (Capillary)
Molecular Weight:	193.24 g/mole

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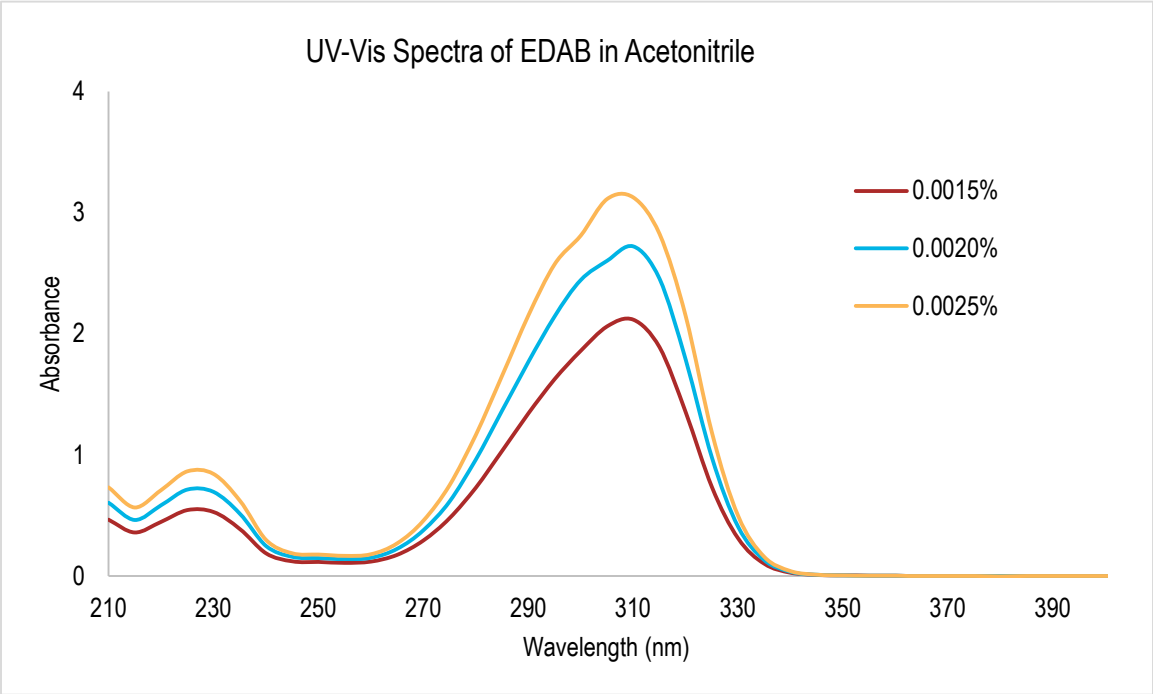
Suggested Usage

EDAB is best used at 2-8% (w/w) of the total to coinitiate polymerization with a type II photoinitiator.

Absorption Spectrum



Safety and Handling

Keep the container tightly closed. Store in a cool and dark place. Handle in a well-ventilated area with suitable protective equipment. Use local exhaust if dust is generated. Detailed information is provided in the SDS.

Reference

Decker C., Jenkins A.D. Kinetic Approach of o2 Inhibition in Ultraviolet and Laser-Induced Polymerizations. *Macromolecules.* 1985;18:1241–1244

For additional information visit our website www.hampfordresearch.com.

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