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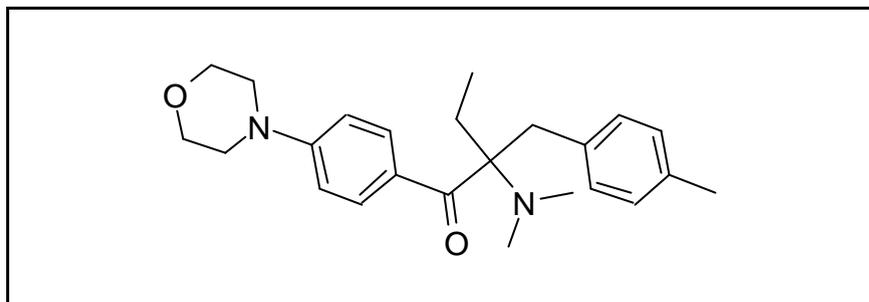
Ciba® IRGACURE® 379 Photoinitiator

General

IRGACURE® 379 is a highly efficient UV curing agent which is used to initiate the photopolymerisation of chemically prepolymers - e.g. acrylates - in combination with mono- or multifunctional monomers.

IRGACURE® 379 is especially suitable for pigmented UV curable systems, photoresists and printing plates. Due to its excellent solubility (compared to IRGACURE® 369) it is easy to incorporate into almost all formulations.

Chemical Structure

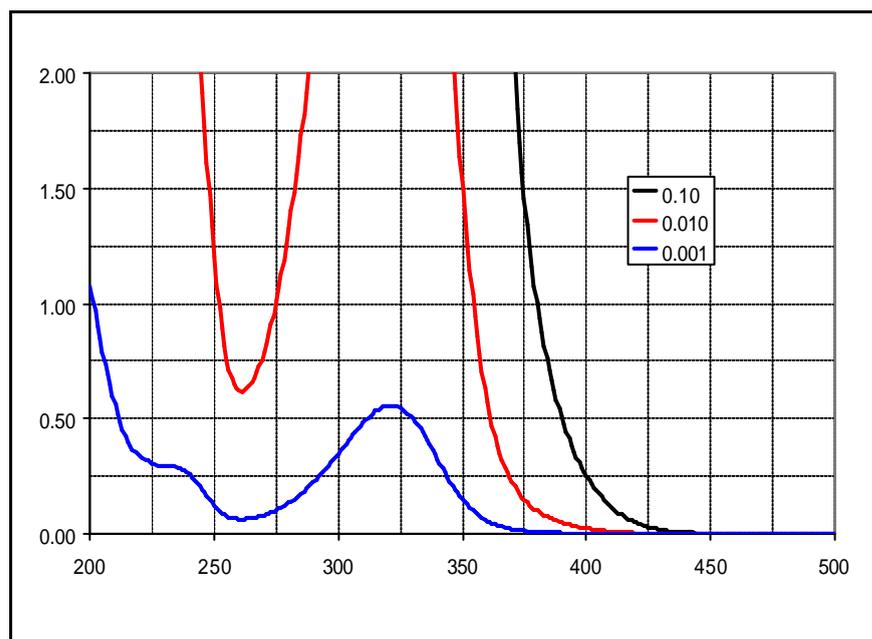


2-Dimethylamino-2-(4-methyl-benzyl)-1-(4-morpholin-4-yl-phenyl)-butan-1-one

Molecular weight: 380.5

CAS-No. 119344-86-4

Absorption Spectrum (% in Acetonitrile)



Physical Properties

Appearance: slightly yellow powder

Melting point: 82-87°C



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Solubility at 22°C (g/100 g solution):

Acetone	> 50
DAROCUR 1173	35
hexanedioldiacrylate (HDDA)	30
tripropyleneglycol diacrylate (TPGDA)	24

Application

IRGACURE[®] 379 may be used after adequate testing alone or in combination with suitable co-initiators, such as IRGACURE 184, IRGACURE 61 or DAROCUR ITX, for UV curable inks, varnishes and resist formulations for applications on paper, metal and plastic materials. Its red-shifted absorption spectrum makes it especially suitable for UV curable inks.

Applications in graphic arts (e.g. offset and screen inks, printing plates, etc.) and in the electronics industry (e.g. photoresists for the production of color filters or other display applications and for solder resists, etc.) are of particular interest.

Compared to IRGACURE 369, IRGACURE[®] 379 differentiates especially due to its substantially improved solubility which allows its use for applications in which IRGACURE[®] 369 is at the solubility limit or couldn't be used at all due to the limited solubility.

The amount of IRGACURE[®] 379 required for optimum performance should be determined in trials covering a concentration range.

Recommended concentrations :

offset inks	2 – 4 %	IRGACURE [®] 379
screen inks	2 – 4 % + 1 – 3 %	IRGACURE [®] 379 IRGACURE 184
pigmented coatings	1 – 4 %	IRGACURE [®] 379
photopolymers for imaging applications like photoresists	0.5 – 5 %	IRGACURE [®] 379



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Safety and Handling

IRGACURE[®] 379 should be handled in accordance with good industrial practice. Detailed information is provided in the Safety Data Sheet.

IRGACURE[®] 379 is sensitive to visible light and any exposure to sunlight should be avoided. Opened bags should be closed immediately after use to protect the product against light.

Important Notice

IMPORTANT: The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled or lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.