

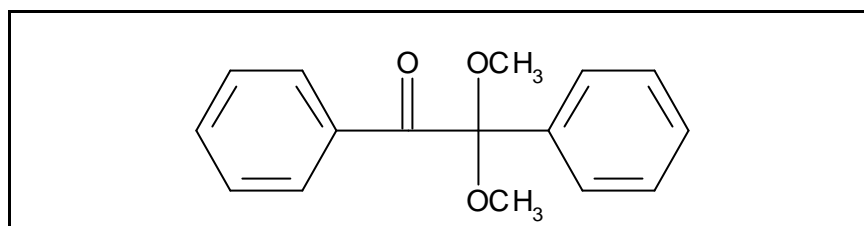
Ciba[®] IRGACURE[®] 651

Photoinitiator

General

IRGACURE 651 is a highly efficient photoinitiator which is used to initiate the photopolymerisation of chemically prepolymers, e.g. unsaturated polyesters or acrylates, in combination with mono- or multifunctional monomers.

Chemical Structure



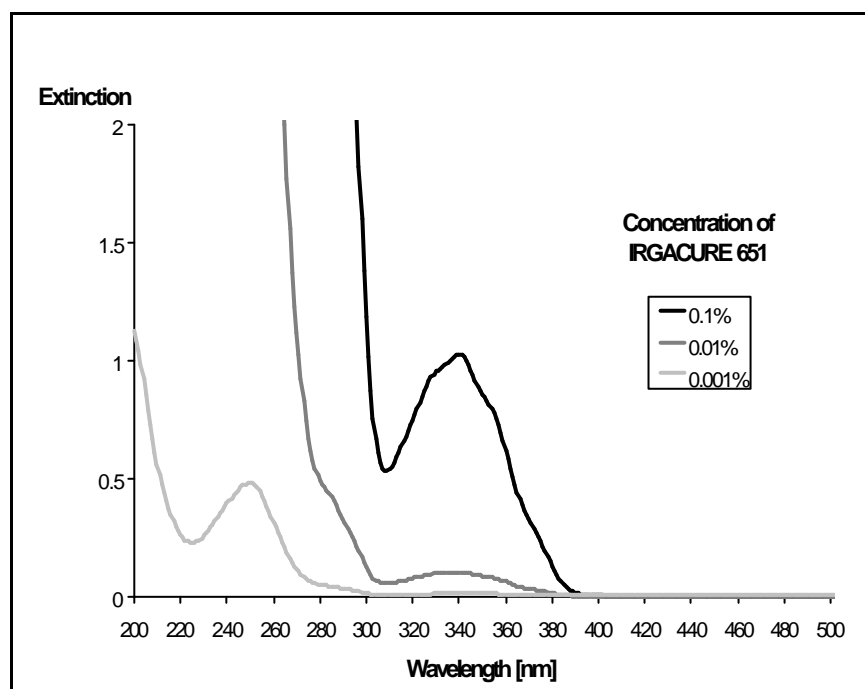
2,2-Dimethoxy-1,2-diphenylethan-1-one

Molecular weight: 256.3

CAS No. 24650-42-8

Absorption Spectrum

(% in Acetonitrile)



Physical Properties

(typical values)

Appearance: white to light yellow crystalline powder

Melting point: 64-67°C

Solubility at 20°C (g/100 g solution):

acetone	> 50
butylacetate	> 50
methanol	41



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toluene	> 50
hexanedioldiacrylate (HDDA)	30
oligomeric triacrylate	25
trimethylolpropanetrisacrylate (TMPTA)	26
tripropylene glycoldiacrylate (TPGDA)	32

Applications

IRGACURE 651 may be used after adequate testing for UV curable applications such as:

- fillers and topcoats based on unsaturated polyester/styrene for the coating of wood and wood substitutes
- inks and clear coatings based on acrylates for paper, metal and plastic materials
- printing plates and photoresists

The amount of IRGACURE 651 required for optimum performance should be determined in trials covering a concentration range.

Recommended concentration:

Fillers:	0.5 – 1.0 %	IRGACURE 651
clear varnishes based on unsaturated polyester:	1.0 – 1.5 %	IRGACURE 651
printing inks:	3.0 – 6.0 %	IRGACURE 651
printing plates:	1.0 – 1.5 %	IRGACURE 651
photoresists:	2.0 – 5.0 %	IRGACURE 651

Safety and Handling

IRGACURE 651 should be handled in accordance with good industrial practice. Detailed information is provided in the Safety Data Sheet.

IRGACURE 651 is sensitive to visible light and any exposure to sunlight should be avoided. Opened drums should be closed after use to protect the product against light.

Trademark

IRGACURE is a registered trademark.

Important Notice

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Ciba Specialty Chemicals

Coating Effects Segment



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