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Photoinitiator for UV Radiation Curing Systems

PHOTOINITIATOR

1. General

Chivacure[®] 150 is an oligomeric polyfunctional alpha-hydroxyketone photoinitiator characterized by its extremely high reactivity, low odor and non-yellowing properties. It is compatible with most acrylic-based UV systems and is ideal for extra-thin coatings where oxygen inhibition is severe. When diluted with suitable solvents or surfactants, it is also suitable for water based UV curable systems.

2. Properties

Chemical name : Oligo[2-hydroxy-2-methyl-1-[4-(1-methylvinyl)phenyl]propanone]

Structure :

$$H_3C$$
 CH_3
 CH_2
 R
 CH_2
 R
 CH_3
 CH_3

CAS No. : 163702-01-0

3. Physical Data

Appearance : Yellow semi-solid

Odor : Faint

Melting point : 30-100 °C

Boiling point : >250 °C

4. Solubility

(g in 100 ml solvent @25 °C)

 Acetone
 :
 >40

 Toluene
 :
 23

 MEK
 :
 >40

 HDDA
 :
 >6

 TMPTA
 :
 6

 TPGDA
 :
 25

 Water
 :
 <0.5</td>

5. Specification

Appearance : Yellow semi-solid

Assay (HPLC) : 95% min.

Specific gravity: 1.05 min. @50 °C

Volatiles : 0.5% max.

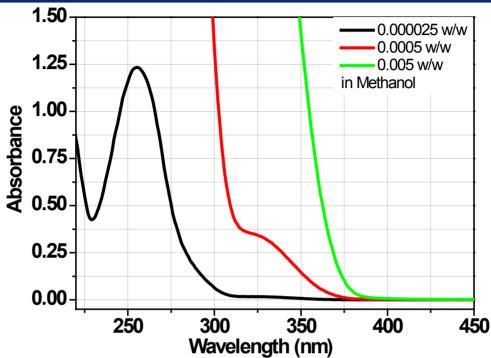


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6. UV Spectrum



7. Application

Chivacure[®] 150 is especially suitable for the applications when no migration, low odor and non-yellowing are required. It is recommended for below applications and the use levels range between 0.5% and 5% are recommended depending on the substrate and performance requirements of the final application.

- UV coatings and printing inks
- Adhesives and photoresists
- Printing plates
- Fiber optics

8. Storage

Chivacure[®] 150 is sensitive to visible light and any exposure to sunlight should be avoided. Kept at low temperature (below 25 °C) and dry conditions. Avoid contacting with heat. Opened drums should be closed after use to protect the product against light.