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Photoinitiator for UV Radiation Curing Systems

PHOTOINITIATOR

1. General

Chivacure[®] 70 contains 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

Compositions : Oligo[2-hydroxy-2-methyl-1-[4-(1-methylvinyl)phenyl]propanone] and

ethoxylated(5)pentaerythritol tetraacrylate (PPTTA)

Structure :

$$H_3C$$
 CH_3
 CH_2
 CH_2
 CH_3
 CH_3

CAS No. : 163702-01-0 and 51728-26-8 (PPTTA)

3. Physical Data

Appearance : Pale yellow viscous liquid

Odor : Characteristic

Melting point : < 10 °C

Boiling point : > 200 °C

Specific gravity : ca. 1.09 @ 25 °C

4. Solubility

(g in 100 ml solvent @25 °C)

 Acetone
 :
 > 40

 Toluene
 :
 > 50

 MEK
 :
 > 40

 HDDA
 :
 > 10

 TMPTA
 :
 > 10

 TPGDA
 :
 > 20

 Water
 :
 < 0.5</td>

5. Specification

Appearance : Yellow viscous liquid Specific gravity : 1.07 - 1.12 @ 25 °C

Volatiles : 0.5% max.

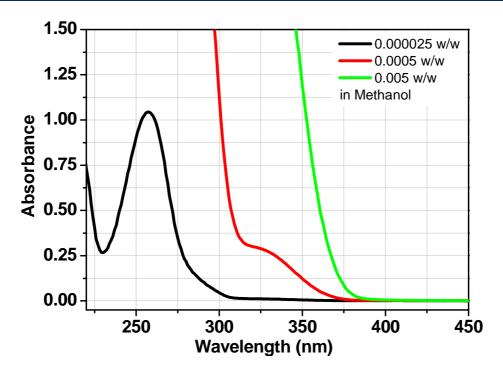


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6. UV Spectrum



7. Application

Chivacure® 70 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. Packages

20 kg steel drum. It is recommended to heat the drum to 50 °C (122 °F) to transfer.