

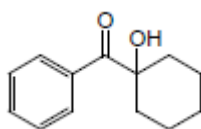
Photoinitiator 184

Product Description

Photoinitiator 184 is a highly efficient non-yellowing photoinitiator which is used to initiate the photopolymerisation of chemically unsaturated prepolymers - acrylates - in combination with mono- or multifunctional vinyl monomers. It combines the characteristics of high photospeed and exceptional storage life which makes it an ideal choice for clear coatings on paper, flooring, metal, plastics and wood.

Chemical Data

Structure:



Chemical Name	1-Hydroxy-cyclohexyl-phenyl-ketone
CAS No.	947-19-3
EINECS No.	213-426-9
Molecular Formula	C ₁₃ H ₁₆ O ₂
Molecular Weight	204.27

Typical properties

Appearance	White to off-white crystalline powder
Assay (HPLC)	99 % min
Specific gravity	1.1 - 1.2 @ 20°C
Ash %	≤0.1
Melting point	46 - 50 °C
Volatiles	0.2 % max.
Transmittance	98 % min. @ 425 nm 99 % min. @ 500 nm

Applications

Photoinitiator 184, when irradiating with UV light, undergoes a homolytic and intramolecular type of breakage to generate a pair of free radicals to initiate the polymerization of UV curable systems. It does not require hydrogen donor to initiate its radicals, however, its radicals are very sensitive to oxygen in the air.

All the information above is based on data obtained at laboratory and is not to be used for certifying the suitability of the product. Users are advised to test the product in their own system before purchase.

Photoinitiator 184

Photoinitiator 184 is strongly recommended when non-yellowing properties are crucial. Results obtained from outdoor exposure study show that it gives better long-term non-yellowing performance than other initiators.

The usage rates of Photoinitiator 184 vary according to the composition of the system, source of light, line speed, and film thickness but usually lie between 0.5 % to 5 % w/w.

Photoinitiator 184 can be used for printing ink, overprint vanishes and wood lacquers, adhesive and photoresist dry film.

Solubility

(g in 100 ml solvent @ 20°C)

Acetone	> 100	HDDA	> 100
Toluene	> 100	N-Vinylpyrrolidone	> 100
Methyl acrylate	> 100	TMPTA	> 50
Ethyl acetate	> 100	2-Ethyl acrylate	> 50
Ethanol	> 100	Water	442 mg/L @23°C

Packing & Storage

- 20kg Paper Carton Box
- This material should be stored indoors in the original, unopened and undamaged containers in a dry place at storage temperatures below 30°C. Exposure to light or direct sunlight should be avoided
- Recommended shelf life is 3 years (under proper storage conditions).

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