Lencolo®
蓝柯路

TDS

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Lencolo 5007 Deep-cure Photoinitiator TPO

CAS#：75980-60-8

Description

Lencolo 5007 Due to its broad absorption range, TPO has an effective absorption peak of 350-400 nm and continues to absorb up to around 420 nm. Its absorption peak is longer than that of conventional initiator. Upon irradiation, it generates both benzoyl and phosphinoyl radicals, each capable of initiating photopolymerization, resulting in fast UV curing. It also exhibits photobleaching properties, making it suitable for thick-film deep curing and non-yellowing coatings. Low volatility makes it suitable for use in water-based systems.

Technical Data

Molecular Formula	$C_{22}H_{21}PO_2$
Molecule Weight (g/mol)	418
Compostition	2,4,6 (Trimethylbenzoyl) diphenylphosphine
Appearance	Yellow powder
Melting Point (ºC)	91 - 94
Purity (%)	≥ 97
Acid Value	≤ 4
Volatile Content (%)	≤ 0.5
Ash Content (%)	≤ 0.1
Absorption Peak (nm)	295、380、393

Product Features

This product is mostly used in white systems and can be used in light-curing coatings, printing inks, UV-curing adhesives, optical fiber coatings, photoresists, photopolymerizing printing plates, stereolithographic resins, composite coating materials, dental fillings, etc.

Recommended Usage

Solubility (20 ºC, g/100g)

Solvent or monomer	Acetone	HDMAP	Dichloromethane	TPGDA
Solubility :	50	70	60	15

Recommended addition: 0.5~4%.

It is recommended that users determine the optimal dosage through preliminary testing before use.

Storage Conditions

To prevent premature polymerization due to the high reactivity of this product, keep it tightly sealed and store away from heat sources and direct sunlight. It is recommended to maintain storage temperature below 30 °C. Unused product should be promptly resealed and must not be left open. Under ventilated conditions at 25 °C, the product has a safe storage period of 6 months. Available packaging: 20 kg per bag.

Tips: Lencolo 5007 is one of the most commonly used photoinitiators. It has fast curing speed, bleaching effect, and good deep curing of thick films.