Chivacure® P-4075

PRODUCT DATASHEET

www.chitec.com

Introduction

Chivacure® P-4075 (P-4075) is a liquid photoinitiator blend based on oligomeric hydroxyketone and phosphine oxide photoinitiators.

With the optimized proprietary ratio, P-4075 is characterized by:

- Very low color contribution
- Excellent surface cure
- Broad wavelength & photoactivity
- Synergistic with photosensitizers, e.g. ITXs.

The wide range of UV absorbance wavelength allows for good surface and depth cure balance in both mercury lamps and LED UV curing systems.

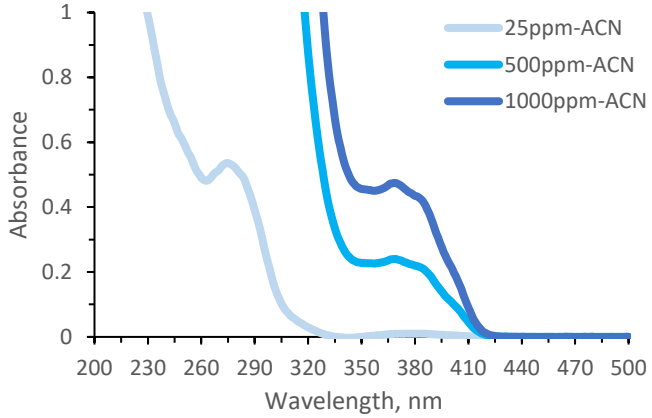
P-4075 blend is manufactured by Chitec's unique and environmentally friendly process that allows for excellent initial color formation while not having odor after curing. In printing ink applications, Chivacure® P-4075 is compliant for food packaging regulations.

Application

Chivacure® P-4075 is suitable for use in:

- Clears, white and pigmented ink system
- Mercury lamp and LED UV system
- Printing inks of food packaging
- Low viscosity ink system
- Low curing energy systems

UV Absorption



Chemical Information

A Liquid mixture of photoinitiators

Physical Data

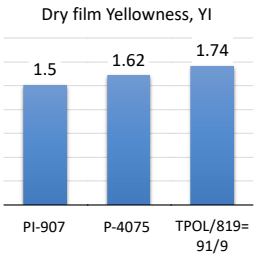
Appearance	:	Yellow liquid
Odor	:	Faint
Color (Gardner)	:	4.5
Assay (HPLC)	:	99 % min.
Volatiles	:	0.5 % max.
Clarity	:	Clear

Solubility (g in 100 ml solvent/ monomer @ 25°C)

Acetone	:	> 100
Butyl acetate	:	> 100
Dichloromethane	:	> 100
MEK	:	> 100
Styrene	:	> 100
TMPTA	:	> 100
Water	:	< 0.1

Performance Data

A. Excellent Initial Color and Thermal Yellowing Resistance



Test conditions:
- LED 365nm
- Test PI= 4%
- Film thickness= 9um

B. UV Curing Performance

Energy increase

	UV dosage, mj/cm2	PI-907	P-4075	TPOL/819= 91/9
UVA	52	O	Δ~O	X
UVB	62			
UVC	11			
UVA	87	O	O	X~Δ
UVB	106			
UVC	23			

Test conditions:
- Test PI/ 2-ITX= 6%/ 1%
- Carbon black= 5%
- Film thickness= 9um

O= full cure
Δ= surface tacky
X= wet film