

Product Data Sheet

General Information

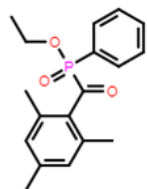
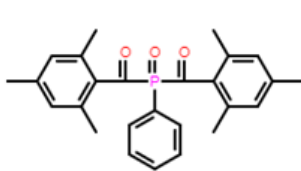
Omnirad 2100 is a highly efficient liquid curing agent to initiate radical polymerization of unsaturated resins after exposure to UV light such as those based on a prepolymer – e.g., acrylates and unsaturated polyesters – in combination with mono- or multifunctional monomers as reactive thinners.

It is well suitable for formulations in which Omnirad TPO is used. Omnirad 2100 provides all the handling advantages of a liquid product. In thicker coatings Omnirad 2100 offers improved bottom curing compared with that of Omnirad TPO.

It is especially suitable for white-pigmented formulations with minimal yellowing after curing and for coatings with low pigment volume concentration.

Therefore Omnirad 2100 can be offered in almost all applications as a one-to-one replacement for Omnirad TPO with certain advantages.

Chemical Data

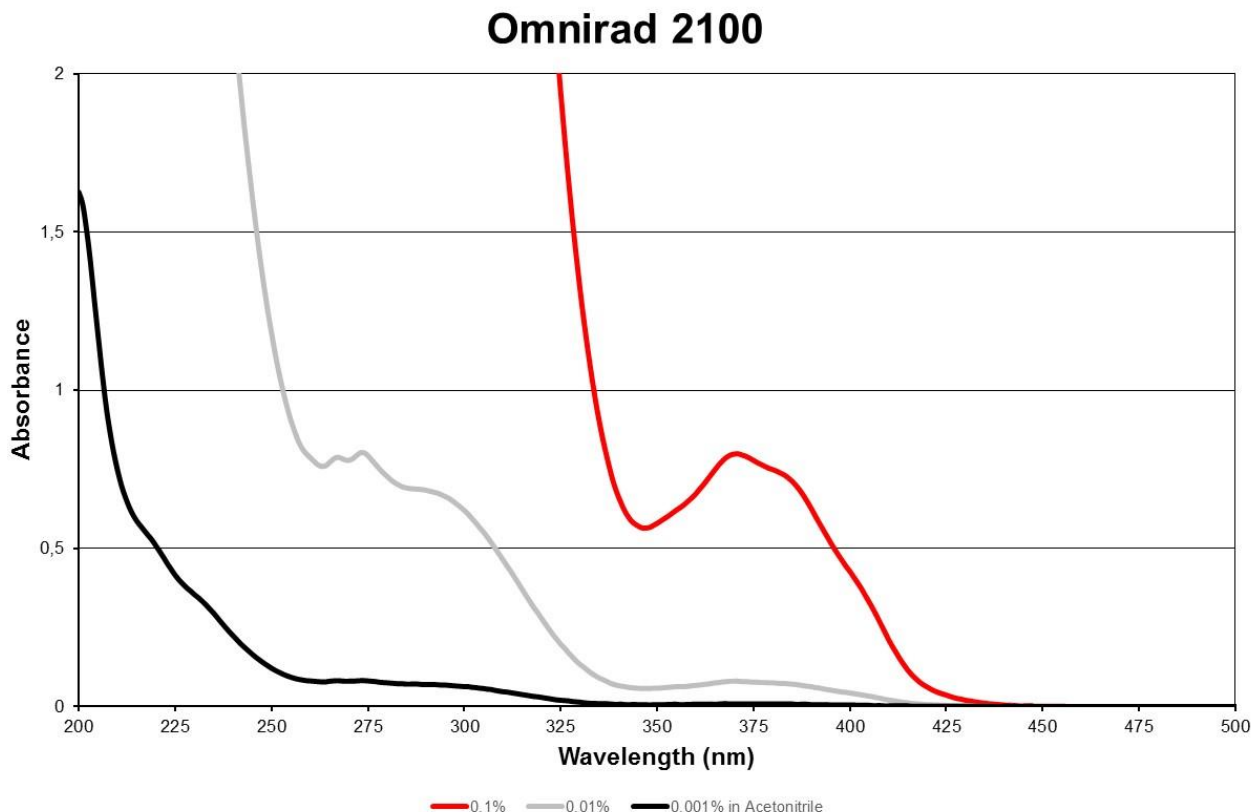


Chemical Name: Blend of Bis(2,4,6-Trimethylbenzoyl)phenylphosphine oxide and Ethyl(2,4,6-Trimethylbenzoyl)-phenyl phosphinate

Molecular weight: 418.46 g/mol + 316.3g/mol

CAS No: 162881-26-7 + 84434-11-7

Absorption Spectrum



Specification

Appearance	Visual	Yellow liquid
Transmittance @ 500 nm	Spectrophotometer, 10g/100ml Toluene	≥ 95.0 %
Absorbance	1.000 g/l in acetonitrile at 340 nm	0.62 - 0.90 %

Additional Typical Properties

Density at 20 °C (68 °F) ~ 1.10 g/cm

Good compatibility with most organic solvents and monomers, poorly soluble in water

Application

Omnirad 2100 may be used, after adequate testing, in applications such UV-curable formulations for clear and for pigmented coatings on wood, metal, plastic, paper and optical fibers as well as for printing inks, composites and adhesives. For patent reasons, however, the use of this product is not allowed in dental applications. Omnirad 2100 is suitable for white pigmented formulations, wood fillers and UV-stabilized, UV curable varnishes.

It is especially suitable for white pigmented formulations with minimal yellowing after curing and for coatings with low pigment volume concentration.

Suitable UV-curable formulations may be based on acrylate resins, acrylate monomer systems and unsaturated polyesters. As a liquid photoinitiator, Omnirad 2100 is especially easy to incorporate into formulations.

Omnirad 2100 can be used alone but in most cases combinations with other photoinitiators, e.g., α -hydroxy ketones or phenyl glyoxylates, give improved balance between through- and surface-curing performance.

Formulated product properties will depend on the actual reactive monomers, oligomers and additives utilized.

Recommended Addition levels

The amount of Omnirad 2100 as supplied required for optimum performance should be determined in trials covering a concentration range : 1 – 5 %

Storage & Handling

Storage must be in a cool, shaded, well ventilated and dry area away from direct sources of heat and sunlight.

Omnirad 2100 will freeze when stored below -20 °C (-4 °F). Stored for extended periods of time below 6 °C (43 °F), some crystallization may occur. In both cases, the product is restored to its original form by stirring at room temperature for a short time.

Avoid contact with alkaline additives and water. Subject to appropriate storage under the usual storage and temperature conditions, our products are durable for at least 24 months.

Omnirad 2100 should be handled in accordance with good industrial practice. Further information is provided in the material safety data sheet which is available on request.

Regulatory Status

All information can be found on MSDS (Material safety data sheet) and RIS (Regulatory Information Sheet) available upon request.

Packaging

Omnirad 2100 is available in 20 kg plastic pails.

Disclaimer:

The information presented in this data sheet is given in good faith and is based on the material available to us at the time of writing. The information is not to be taken as a warranty or representation for which we assume legal responsibility, nor as permission or recommendation to practice any patented invention without a license. It is offered solely for consideration, investigation and verification.

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