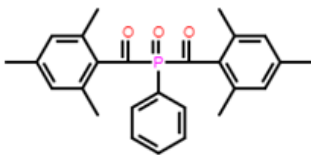


Product Data Sheet

General Information

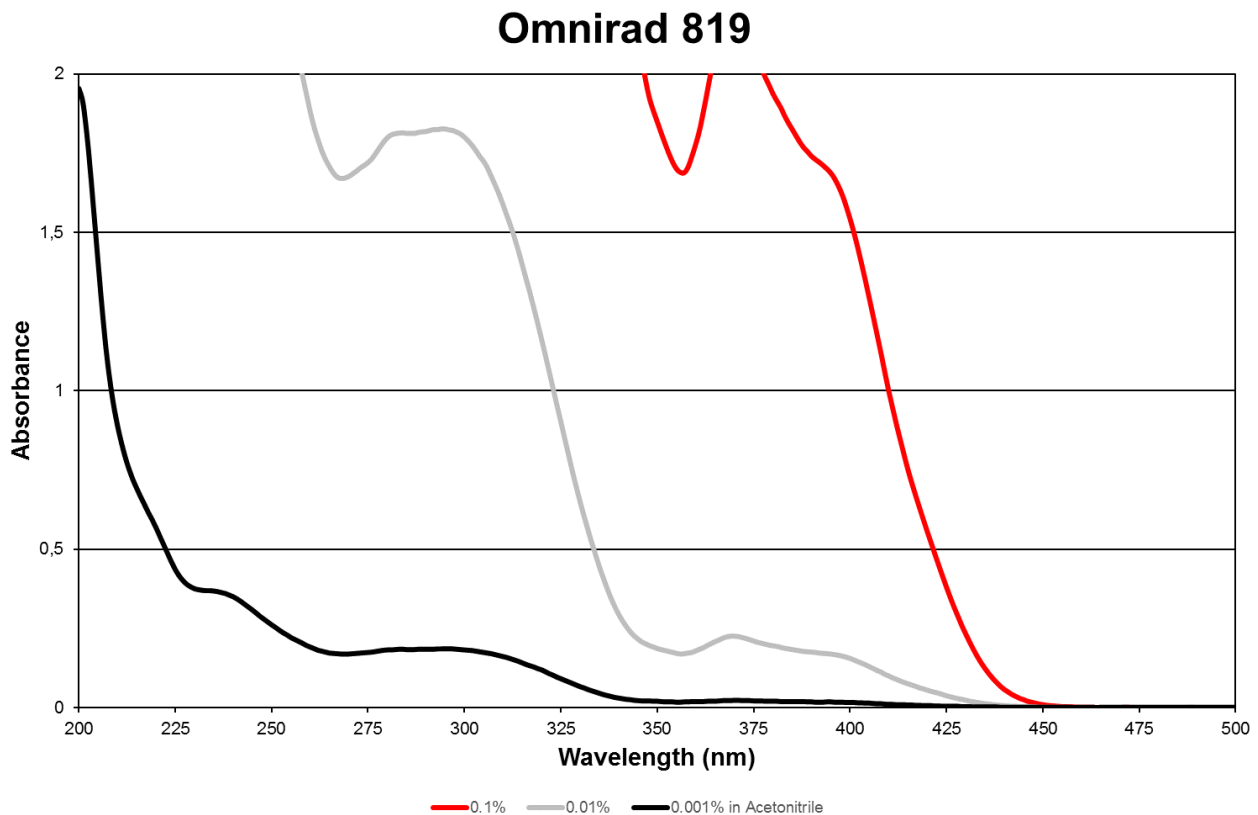
Omnirad 819 is a versatile photoinitiator for radical polymerization of unsaturated resins upon UV light exposure. It is especially suitable for white pigmented formulations, the curing of glass-fiber-reinforced polyester/styrene systems and for clear coats for outdoor use in combinations with light stabilizers. Thick-section curing is also possible with this photoinitiator.

Chemical Data



Chemical Name: Bis(2,4,6-Trimethylbenzoyl)phenylphosphine oxide
Molecular weight: 418.5 g/mol
CAS No: 162881-26-7

Absorption Spectrum



Specification

Appearance	Visual	Yellow powder
Purity	HPLC analysis	≥ 98.0 %
Transmittance @ 500 nm	Spectrophotometer, 5g/100ml Toluene	≥ 98.0 %
Clarity of solution	Visual, 5g/100ml Toluene	Clear

Additional Typical Properties

Melting point	127 – 133 °C (260 – 271 °F)
Solubility at 20 °C (68 °F)	
butyl acetate	~ 6 % by weight
hexanediol diacrylate (HDDA)	~ 5 % by weight
trimethylolpropane triacrylate (TMPTA)	~ 5 % by weight
tripropylene glycol diacrylate (TPGDA)	~ 5 % by weight

Application

Omnirad 819 may be used, after adequate testing, in UV-curable formulations for clear and for pigmented coatings on wood, metal, plastic, paper and optical fibers as well as for printing inks.

Omnirad 819 exhibits at low concentrations an outstanding curing performance in highly opaque white and coloured furniture coatings or screen inks containing rutile titanium dioxide or coloured pigments and affords minimum yellowing after exposure to sufficient amounts of UV radiation. Additionally the outstanding absorption properties of Omnirad 819 allow the curing of thick sections.

Omnirad 819 can be used in combination with other photoinitiators such as Omnirad 184 or Omnirad BDK. With the latter it is especially suitable to cure polyester/styrene resins used for glass-fiber reinforced materials.

Due to its photo sensitivity at longer wavelengths, Omnirad 819 can easily be used in combinations with UV absorbers, e.g., Omnistab UV 400. It is therefore ideally suitable for use in weather-resistant UV-curable coatings.

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

Recommended Addition levels

The amount of Omnirad 819 required for optimum performance should be determined in trials covering a concentration range :

clear acrylate and UPES/styrene coatings	0.1 – 0.2 % + 1.0 – 2.0 % Omnirad 184
white acrylate and UPES/styrene furniture coatings	0.5 – 1.0 % + 1.0 – 2.0 % Omnirad 651
colored acrylate formulations	0.5 – 1.0 % + 1.0 – 2.0 % Omnirad 184
white screen printing inks	0.5 – 1.5 % + 1.0 – 2.0 % Omnirad 184
glass-reinforced UPES/styrene prepregs	0.2 – 0.4 %

Storage & Handling

Storage must be in a cool, shaded, well ventilated and dry area away from direct sources of heat and sunlight. Opened drums should be sealed after use to protect the product from light. 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 36 months.

Omnirad 819 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 819 is available in 20 kg cartons.

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.

EUROPE
IGM Resins B.V. (Head office)
T : +31 416 316 657
sales@igmresins.com

NORTH AMERICA
IGM Resins USA Inc.
T : +1 630 2131616
sales@igmresins.com

ASIA-PACIFIC
IGM Resins Shanghai Co., Ltd.
T : +86 21 5208 0993

IGM Resins Taiwan Ltd.
T : +886 342 75275

IGM Japan GK
T : +81 3 5219 1502
sales@igmresins.com

SOUTH AMERICA
Quiminutri Comercio de
Especialidades Químicas S.A.
T : +55 19 3856 4480
comercial@igmresins.com.br