



Technical Data Sheet

# DEUTERON UV 3100

UV-Initiator for cationic polymerisation

**Deuteron**<sup>®</sup>  
ADDITIVES TO YOUR SUCCESS

## ■ Product Characteristic

Density	approx. 1.1 g/cm <sup>3</sup>
Active content	40 %
Reactive thinner	C12 / C14 glycidyl ether
Appearance	reddish, viscous liquid



## ■ Product Description

Deuteron UV 3100 is a solution of Bis-(4,4-dodecylphenyl)- Iodoniumhexafluorophosphate in reactive solvents. Deuteron photo initiators are suitable for resins based on oxirane and/or oxetane groups (epoxy resins and vinyl ether).

The addition of Deuteron photo initiators enables the formulator to utilize UV light to induce the polymerisation of the above-mentioned resin systems. Deuteron UV 3100 is soluble in the mentioned binder systems including the standard solvents and reactive diluents.

The polymerization is initiated by exposure to UV light in a wavelength range between 220 nm and 250 nm. The maximum absorption is at 240 nm. Suitable light sources are high-pressure mercury lamps that have a high emission in the mentioned area of absorption.

Deuteron UV 3100 does not affect the film shrinkage negatively because it contains no volatile solvents.

## ■ Applications

Deuteron UV 3100 is suitable for a wide range of applications including:

- › Overprint varnishes
- › UV silk-screen inks
- › UV flexographic inks
- › UV lamination adhesives
- › Metal coatings
- › Plastics coatings

The use of Deuteron UV 3100 especially improves the following properties:

- › low shrinkage
- › no benzene emission
- › only slight odour
- › flexibility
- › adhesion properties on difficult substrates

## ■ Dosage

Typical addition range: 1.0 % - 5.0 %

The required dosage level highly depends on the system and the desired curing speed. Thus, it is highly recommended to determine the needed addition level by a practical ladder study.

Please note that there are several options to further improve the performance of our Deuteron photo initiators. This includes the use of co-catalysts (e.g. ITX), catalysis by Copper-naphthenates, increasing the curing temperature and addition of multifunctional alcohols (e.g. TMP). For details please refer to our UV initiator brochure.



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## ■ Processing

Deuteron UV cationic initiators can be incorporated into the binder with high-speed stirrer or other aggregates, e.g. dissolver.

## ■ Storage Conditions

12 months at room temperature and dry conditions in its original tightly closed containers.

Do not expose to direct sunlight. Optimum storage temperature is between 10 °C and 35 °C. Avoid contact with water and high humidity.

## ■ Package Sizes

Plastic canister (20 kg net)

## ■ Safety

According to Regulation (EC) No. 1272/2008 Deuteron UV 3100 is classified as a dangerous product and therefore needs to be labelled.

For detailed information please refer to the Safety Data Sheet and Regulatory Information Sheet. The documents are also available on our website:

<https://www.deuteron.com/en/download-center/>

## ■ Deuteron: First class products for the coating industry

Deuteron GmbH successfully develops and sells innovative additives since 1977. Our product range consists of matting agents, anti-static additives, texturing additives, thickeners and UV initiators. In the course of our company history we have become an important partner of the national and international paint, lacquer and coating industry with sales partners around the globe.

This leaflet intends to give technical advice without warranty and does not claim to be complete.



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