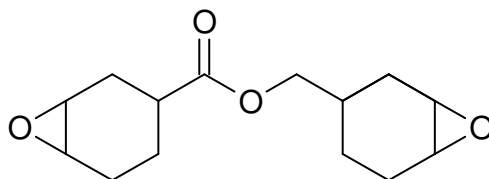


# UVACURE<sup>®</sup> 1500

## High Purity Grade Cycloaliphatic Diepoxide



### INTRODUCTION

UVACURE 1500 is a high purity, low viscosity, cycloaliphatic diepoxide that undergoes rapid polymerization when exposed to UV light in the presence of a photoinitiator that generates a cationic catalyst. Thermally stable onium salt photoinitiators are used to induce the cationic polymerization on exposure to UV light. Formulations containing UVACURE 1500, along with other epoxide resins, polyol modifiers, or vinyl ethers, can provide a range of cured film properties. Coatings containing UVACURE 1500 are generally tough, solvent resistant, and exhibit good adhesion to a variety of substrates, including metals and plastics.

### PERFORMANCE HIGHLIGHTS

UVACURE 1500 is characterized by:

- Light color
- Low viscosity
- Low odor
- Low skin and eye irritation potential
- High purity

UV cured products containing UVACURE 1500 are generally characterized by the following performance properties:

- No oxygen inhibition for UV cure
- Low shrinkage on curing
- Excellent adhesion to metals and plastics
- High gloss
- Resistance to yellowing
- Excellent electrical properties

The actual properties of UV/EB cured products also depend on the selection of other formulation components such as coreactants, additives and photoinitiators.

### SPECIFICATIONS

	SMT <sup>(1)</sup>	VALUE
Color, Pt-Co scale, max.	001-F	80
Viscosity at 25°C, cP	013-T	220-250
Weight per epoxide	065-F	128-140

### TYPICAL PHYSICAL PROPERTIES

Density, g/ml at 25°C	1.17
Functionality, theoretical	2
Refractive index, n <sub>D</sub> at 20°C	1.4965

### TYPICAL CURED PROPERTIES<sup>(2)</sup>

Tensile strength at max. load, psi	6000
Elongation at break, %	7
Young's modulus, psi	152000
Glass transition temperature, °C <sup>(3)</sup>	77

### CHEMICAL ABSTRACT SERVICE NUMBER

2386-87-0  
(3,4-Epoxycyclohexane)methyl 3,4-epoxycyclohexylcarboxylate

### SUGGESTED APPLICATIONS

UV cured coatings formulated with UVACURE 1500 can be used for:

- Metal coatings
- Plastic coatings
- Overprint varnishes

(1) Standard Methods of Testing available upon request.

(2) UV cured free film, 40-100 μ thick.

(3) Determined by Dynamic Mechanical Analysis.

## STORAGE AND HANDLING

Before using UVACURE 1500, consult the **Material Safety Data Sheet** for additional information on safety, handling, emergency and first aid procedures and recommended personal protective equipment.

The recommended storage temperature for UVACURE 1500 is 4°C to 40°C (39°F to 104°F). Care should be taken not to expose the product to high temperature conditions, direct sunlight, ignition sources, oxidizing agents, alkalis or acids. This might cause uncontrollable polymerization of the product with the generation of heat. Storage and handling should be in stainless steel, amber glass, amber polyethylene or baked phenolic lined containers.

## PRECAUTIONS

Avoid contact with eyes, skin and clothing. Direct contact with this material may cause mild eye and skin irritation. Repeated or prolonged dermal contact may cause allergic skin reactions. Wash thoroughly after handling. Use with adequate ventilation. Keep container closed.

---

• Email: [custinfo@cytec.com](mailto:custinfo@cytec.com) | Worldwide Contact Info: [www.cytec.com](http://www.cytec.com) | Toll Free: 800-433-2873 | Tel: 973-357-3193 •

Cytec Industries Inc. in its own name and on behalf of its affiliated companies (collectively, "Cytec") decline any liability with respect to the use made by anyone of the information contained herein. The information contained herein represents Cytec's best knowledge thereon without constituting any express or implied guarantee or warranty of any kind (including, but not limited to, regarding the accuracy, the completeness or relevance of the data set out herein). Cytec is the sole owner or authorized user of the intellectual property rights relating to the information communicated. The information relating to the use of the products is given for information purposes only. No guarantee or warranty is provided that the product is adapted for any specific use. The user or purchaser should perform its own tests to determine the suitability for a particular purpose. The final choice of use of a product remains the sole responsibility of the user.

TRADEMARK NOTICE: The ® indicates a Registered Trademark in the United States and the ™ or \* indicates a Trademark in the United States. The mark may also be registered, the subject of an application for registration or a trademark in other countries.