

EBECRYL[®] 5500

Glycerol Derivative Triacrylate

INTRODUCTION

EBECRYL 5500 is a bio-based reactive diluent developed for energy curable coatings and inks. In conjunction with the EBECRYL 5000 Series bioligomers, EBECRYL 5500 can be used to formulate coatings and inks that contain more renewable resources versus standard diluents without the loss of printability, pigment wetting or performance properties. EBECRYL 5500 exhibits similar performance to standard trifunctional reactive diluents such as OTA-480⁽¹⁾, TMPEOTA⁽²⁾ and TMPTA⁽³⁾.

PERFORMANCE HIGHLIGHTS

EBECRYL 5500 is characterized by:

- Partially based on renewable resources
- Low viscosity
- Light color
- Low odor
- Excellent reduction of oligomer viscosity

UV/EB curable formulated products containing EBECRYL 5500 are characterized by:

- Good cure response
- Good flexibility
- Hardness

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

SUGGESTED APPLICATIONS

EBECRYL 5500 is recommended as a reactive diluent for UV/EB cured coatings and inks with higher renewable content, especially where fast cure speed, cross-link density, and a combination of flexibility and hardness is desired.

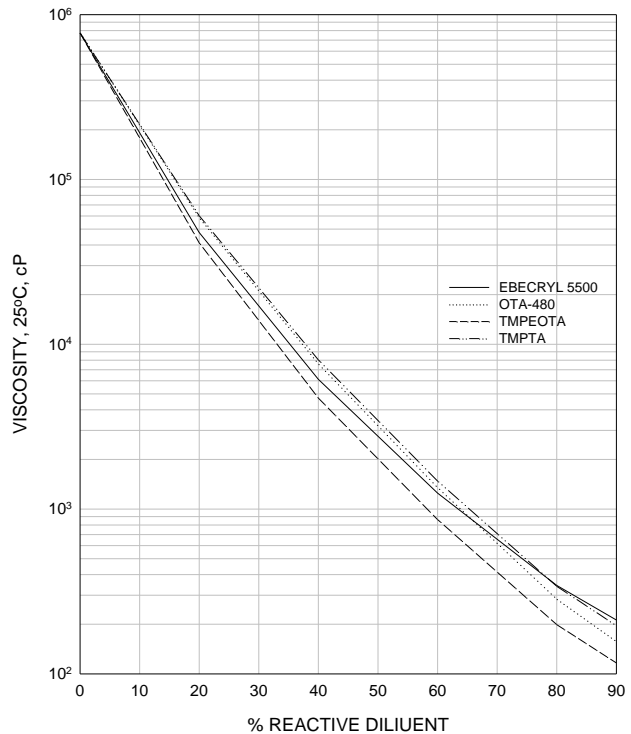
TYPICAL PROPERTIES

PROPERTY	VALUE
Acid value, mg KOH/g	<1.0
Appearance	Clear liquid
Color, Pt-Co scale	<100
Density at 25°C, g/ml	1.07
Flash point, Setflash, °C	>100
Residual solvent, %	<0.1
Viscosity at 25°C, cP	90-130
Water, wt. %,	<0.1

VISCOSITY REDUCTION

Graph I shows the viscosity reduction of EBECRYL 3720, a bisphenol A based epoxy diacrylate oligomer, with EBECRYL 5500. For comparison the viscosity reduction with similar reactive diluents, OTA-480, TMPEOTA and TMPTA is also shown.

Graph I
EBECRYL 5500
Comparison of Diluent Effect on a Viscous Oligomer



(1) Propoxylated Glycerol Triacrylate, product of Cytec Industries
 (2) Trimethylolpropane Ethoxy Triacrylate, product of Cytec Industries
 (3) Trimethylolpropane Triacrylate, product of Cytec Industries

STORAGE AND HANDLING

Before using EBECRYL 5500, consult the **Material Safety Data Sheet** for additional information on safety and handling procedures, and recommended personal protective equipment.

The recommended storage temperature for EBECRYL 5500 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. Procedures that remove or displace oxygen from the material should be avoided. Do not store this material under an oxygen free atmosphere. Dry air is recommended to displace material removed from the container.

PRECAUTIONS

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

Please refer to the Cytec **Guide to Safety, Health and Handling of Acrylate Oligomers and Monomers** for additional information on the safe handling of acrylates.

• Email: custinfo@cytec.com | Worldwide Contact Info: www.cytec.com | Toll Free: 800-652-6013 | Tel: (+1) 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.
© 2010 Cytec Industries Inc. All rights reserved.

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.