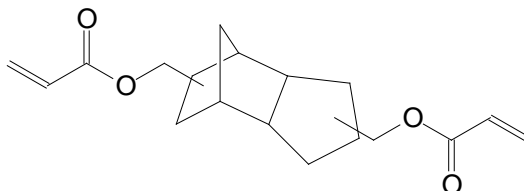


EBECRYL® 130

Tricyclodecane Dimethanol Diacrylate

March 2017



INTRODUCTION

EBECRYL 130 is a cyclic aliphatic diacrylate useful as a reactive diluent in UV (ultraviolet) or EB (electron beam) curable coatings and inks. EBECRYL 130 can impart a combination of hardness, toughness, and resiliency coupled with improved adhesion properties on various substrates. EBECRYL 130 can also significantly increase the T_g of cured polymers. EBECRYL 130 is particularly useful for scratch resistant coatings on plastics and as a pigment grinding vehicle for UV inkjet inks.

PERFORMANCE HIGHLIGHTS

EBECRYL 130 is characterized by:

- Low odor
- Light color
- Low viscosity

UV/EB cured products based on EBECRYL 130 are characterized by the following performance properties:

- High T_g
- Low shrinkage
- Improved adhesion
- Reduced water permeability

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

SUGGESTED APPLICATIONS

EBECRYL 130 can be used to disperse all process color pigments via bead mill for the production of inkjet inks.

Formulated UV/EB curable products containing EBECRYL 130 may be applied via lithographic, screen, gravure, inkjet, direct or reverse roll, and curtain coating methods. EBECRYL 130 is recommended for use in:

- Scratch and abrasion resistant coatings
- Coatings requiring increased thermal resistance
- Inkjet inks

SPECIFICATIONS

	VALUE
Acid value, mg KOH/g, max.	1
Appearance	Clear liquid
Color, Gardner scale, max.	5
Viscosity, 25°C, cP/mPa·s, max.	200

TYPICAL PROPERTIES

Density, g/ml at 25°C	1.09
Functionality, theoretical ⁽¹⁾	2
Solids, % by weight	100

TYPICAL CURED PROPERTIES⁽²⁾

Tensile strength, psi (MPa)	5000 (34)
Elongation at break, %	2
Young's modulus, psi (MPa)	300000 (2069)

CHEMICAL ABSTRACT SERVICE NUMBER

42594-17-2

2-propenoic acid, (octahydro-4,7-methano-1H-indene-5,7-diyl)bis(methylene) ester

(1) Theoretical determination based on the undiluted oligomer.

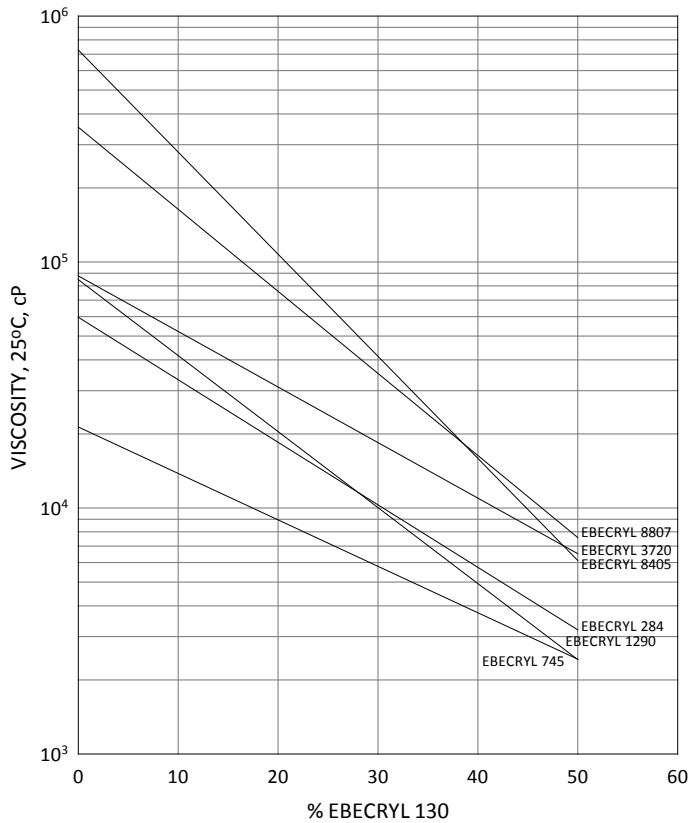
(2) UV cured 5.0 mil thick film.

VISCOSITY REDUCTION

Graph I shows the viscosity reduction of several EBECRYL oligomers⁽¹⁾ when blended with an increasing weight percent of EBECRYL 130.

GRAPH I

DILUENCY EFFECT OF EBECRYL 130 ON VISCOUS OLIGOMERS



PRECAUTIONS

Before using EBECRYL 130, see the Safety Data Sheet (SDS) for information on the identified hazards of the material and the recommended personal protective equipment and procedures.

STORAGE AND HANDLING

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. Wash thoroughly after handling. Keep container tightly closed. Use with adequate ventilation.

See the SDS for the recommended storage temperature range for EBECRYL 130.

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

(1) Products of allnex

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