

ALIPHATIC MONOFUNCTIONAL ACRYLATE

**INTRODUCTION**

EBECRYL® 113 is a low odor aliphatic monofunctional acrylate that can be used as a reactive diluent in ultraviolet light (UV) or electron beam (EB) curing formulations. EBECRYL 113 is a good diluent for a variety of acrylated oligomers. In formulations, it can lower T<sub>g</sub>, increase flexibility and improve adhesion to plastics.®

**PERFORMANCE HIGHLIGHTS**

EBECRYL® 113 is characterized by:

- Low odor
- Low viscosity
- Efficient reduction of oligomer viscosity
- Secondary hydroxyl functionality
- Good pigment wetting

UV/EB cured products based on EBECRYL® 113 are characterized by the following performance properties:

- Good reactivity
- Improved flexibility
- Decreased T<sub>g</sub>
- Improved water resistance
- Reduced shrinkage, improved adhesion

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

**SUGGESTED APPLICATIONS**

EBECRYL® 113 is recommended as a reactive diluent for:

- Screen inks and varnishes
- Coatings for paper and plastic
- Water resistant coatings
- Flexible coatings
- Coatings and inks with adhesion to plastics such as polyethylene and plasticized PVC
- Wood sealers and topcoats

**SPECIFICATIONS**

Acid value, mg KOH/g	max. 1.0
Acrylic acid content, ppm	max. 2000
Appearance	Clear liquid
Color, Gardner	max. 3.0
Epoxy content, %	max. 0.1
Viscosity, 25°C, mPa.s	90 - 150

**TYPICAL PHYSICAL PROPERTIES**

Density, g/ml at 25°C	0.97
Flash point, Setaflash, °C	> 100
Functionality, theoretical	1
Surface tension, dynes/cm	31.9

**PRECAUTIONS**

Before using EBECRYL® 113, 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® 113.