

MODIFIED POLYETHER ACRYLATE
PRODUCED FOLLOWING GOOD MANUFACTURING PRACTICES (GMP)

INTRODUCTION

EBECRYL® LEO 10103 is a multifunctional acrylate that in the presence of an amine synergist can enable the UV curing of printing inks and coatings without, or with only a minimal amount, of photoinitiator. The elimination or reduction of photoinitiator decreases the potential for migration in indirect food contact applications. EBECRYL® LEO 10103 can be used for low migration over print varnishes along with flexographic and offset inks in the entire color range, including white. EBECRYL® LEO 10103 at 10 - 20% by weight in a coating or ink can provide a good balance of surface and through cure.

PERFORMANCE HIGHLIGHTS

EBECRYL® LEO 10103 is characterized by:

- Low viscosity
- Good cure response

UV cured products based on EBECRYL® LEO 10103 are characterized by the following performance properties:

- Low residual odor
- Low extractables

The actual properties of UV cured products also depend on the selection of the other formulation components, such as oligomers, reactive diluent(s) and additives.

SUGGESTED APPLICATIONS

Formulated UV curable products containing EBECRYL® LEO 10103 may be applied by flexography, screen, gravure, direct or reverse roll.

EBECRYL® LEO 10103 is recommended for use in:

- Low migration inks
- Low migration overprint varnishes

FORMULATION GUIDELINES

The recommended level of EBECRYL® LEO 10103 in an ink or coating is 10 - 20% to obtain balanced surface and through cure. For best performance, EBECRYL® LEO 10103 must be combined with a synergist to overcome oxygen inhibition. For low migration offset inks, polymeric amino benzoates can be used. For flexo inks and OPVs, EBECRYL® LEO 10103 can be combined with low migration amino acrylates such as EBECRYL® 85, EBECRYL® LEO 10551, EBECRYL® LEO 10552 and EBECRYL® 10553.

TYPICAL VALUES

Density, g/cm ³	1.1
Residual acrylic acid, ppm	< 200
Residual solvent, ppm	< 10
Viscosity, 25°C, cP/mPa.s	≈6000

PRECAUTIONS

Before using EBECRYL® LEO 10103, 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® LEO 10103.