

TRIFUNCTIONAL DILUTING ACRYLATE
PRODUCED FOLLOWING GOOD MANUFACTURING PRACTICES (GMP)

INTRODUCTION

EBECRYL LEO® 10501 is a trifunctional diluting oligomer that provides low extractables, low odor and low migration after UV or EB curing. It is compatible with a wide range of acrylated resins.

EBECRYL LEO® 10501 can be used to produce low odor and low migrating UV overprint varnishes (OPV's) and inks for indirect food contact applications.

PERFORMANCE HIGHLIGHTS

EBECRYL LEO® 10501 is characterized by:

- Low viscosity
- Non-irritant

UV/EB cured products based on EBECRYL LEO® 10501 are characterized by the following performance properties:

- Good cure response
- Good flexibility
- High gloss
- Low extractables
- Low odor
- Low migration

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

SUGGESTED APPLICATIONS

EBECRYL LEO® 10501 is specially recommended to formulate low extractable and low odor UV/EB curable OPV's and inks for flexography, lithography and screen applications. It is also recommended as a viscosity reducer in applications that must meet regulations for tin, heavy metal*, and quinone content.

TYPICAL VALUES

Acid value, mg KOH/g	< 0.5
Acrylic acid, ppm	< 200
Color, APHA	< 200
Density, g/cm ³ at 25°C	1.10
Functionality (theoretical)	3
Hydroxyl value, mg KOH/g	< 25
Molecular weight, g/mol	470
Residual solvent, ppm	< 100
Viscosity at 25°C, mPa.s	80

MUTAGENICITY ASSESSMENT

The following mutagenicity studies have been conducted in compliance with Good Laboratory Practice standards and according to the specific OECD Guidelines for Testing of Chemicals as follows:

- Ames test – OECD 471
- Mouse lymphoma assay – OECD 476
- Micronucleus test in the mouse – OECD 474

In conclusion, on the basis of the weight of the evidence of available mutagenicity test results, EBECRYL LEO 10501 is considered a nongenotoxic product (more information available on request).

STORAGE AND HANDLING

Before using EBECRYL LEO® 10501, consult the Material Safety Data Sheet for additional information on hazards, handling procedures, and recommended protective equipment.

The recommended storage temperature for EBECRYL LEO® 10501 is 4°C to 40°C. 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. EBECRYL LEO® 10501 should be used within 2 years after production.

PRECAUTIONS

Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Direct contact with this material may cause minimal eye and skin irritation. Contact with skin may cause a cross-allergic reaction in persons already sensitized to acrylate materials. Wash thoroughly after handling. Keep container tightly closed. Use with adequate ventilation.

STATUTORY LABELING

Please refer to Safety Data Sheet.