TECHNICAL DATASHEET

EBECRYL® UV/EB Energy Curable Resins

EBECRYL® LEO 10101

Self-curing Acrylate Resin
Produced following Good Manufacturing Practices (GMP)

March 2017

INTRODUCTION

EBECRYL LEO 10101 is a self-curing multifunctional acrylate enabling the UV curing of printing inks and coatings, not requiring additional photoinitiator, which reduces the risk of migration in indirect food contact applications.

EBECRYL LEO 10101 is specifically developed for making high reactive flexo inks with good flow and low migration.

EBECRYL LEO 10101 can be used for different colours also for white. It is recommended to use 20-30% EBECRYL LEO 10101 in an ink or coating to reach a correct surface and through cure.

PERFORMANCE HIGHLIGHTS

EBECRYL LEO 10101 is characterized by:

- Low viscosity
- Good cure response

UV cured products based on EBECRYL LEO 10101 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 10101 may be applied by flexography, screen, gravure, direct or reverse roll. EBECRYL LEO 10101 is recommended for use in:

- Low migration Flexo inks
- Low migration overprint varnishes

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
- Micronucleus test in the mouse – OECD 474

In conclusion, on the basis of the weight of the evidence of two mutagenicity test results (including one in-vivo test), EBECRYL LEO 10101 is considered non-genotoxic (more information available on request).

TYPICAL PROPERTIES	VALUE
Appearance	Clear to hazy liquid
Density, g/ml	1.1
Molecular weight, average, Dalton	~1000
Residual acrylic acid, ppm	<200
Residual solvent, ppm	<10
Viscosity at 25°C, cP/mPa·s	~4000

PRECAUTIONS

Before using EBECRYL LEO 10101, 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.

Due to the self-curing nature of EBECRYL LEO 10101, it is essential to avoid untentitional exposure to light that could result premature polymerization.

See the SDS for the recommended storage temperature range for EBECRYL LEO 10101.

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

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