

EBECRYL® 5848

Epoxidized Soya Oil Acrylate

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INTRODUCTION

EBECRYL 5848 is an epoxidized soya oil acrylate based in part on renewable resources. EBECRYL 5848 provides improved flow, leveling and pigment wetting in ultraviolet light (UV) or electron beam (EB) energy curable inks and coatings. Adhesion and flexibility are often enhanced when EBECRYL 5848 is used as a modifier in inks and clear or pigmented coatings on paper and metal.

PERFORMANCE HIGHLIGHTS

EBECRYL 5848 is characterized by:

- Approximately 62% renewable content
- Moderate viscosity
- Good pigment wetting
- Good hydrophilic-lipophilic balance for lithography

UV/EB cured products based on EBECRYL 5848 are characterized by the following performance properties:

- Enhanced adhesion on paper and metal
- Good surface appearance
- Improved substrate wetting

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

Formulated UV/EB curable products containing EBECRYL 5848 may be applied via direct or reverse roll, offset gravure, metering rod, slot die, knife over roll, air knife, curtain, immersion and spin coating methods, as well as flexographic, lithographic and screen printing. EBECRYL 5848 is recommended as a modifying resin for:

- Overprint varnishes for paper
- Lithographic ink vehicles
- Metal decorating and protective coatings
- Screen ink vehicles
- Pigmented coatings for wood

SPECIFICATIONS

	VALUE
Appearance	Clear liquid
Color, Gardner scale, max.	10

TYPICAL PHYSICAL PROPERTIES

Acid value, mg KOH/g	≅9.6
Epoxy content, %	≅0.14
Density, g/ml at 25°C	1.03
Functionality, theoretical ⁽²⁾	3-4
Oligomer, % by weight	>97.5
Viscosity, 25°C, cP/mPa·s	≅20000

PRECAUTIONS

Before using EBECRYL 5848, 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 5848.

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) Theoretical determination based on the undiluted oligomer.

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