

LUMICRYL® U-731 *Experimental Product*
VOC Exempt, Physically Drying, Dual Cure
UV/EB RESIN Solution



THE EDGE OF INNOVATION

www.estrone.com

GENERAL DESCRIPTION

U-731 is a unique, physically drying, UV/EB-curable acrylic macromer supplied in t-butyl acetate. U-731 is especially useful in formulating coatings and inks for plastics (PC, PET, PVC, PC/ABS), metal, wood, paper or other substrates.

Coatings can be applied using conventional application equipment such as roller, spray, flexo, gravure, screen. Coatings and inks based on U-731 physically dry to a tack-free, dry-to-touch state after solvent is flashed off. The dried, but uncured coating can undergo forming, transfer laminating, thermal transfer, stamping, sanding, and re-coating prior to UV curing.

Addition of common photo-initiators are required to afford rapid cure of the coating by UV exposure.

DRYING CONDITIONS

Sheets of untreated polyester films coated with U-731 at a thickness of 0.2-0.4 mils can be dried at 120°C for 5 minutes (or alternatively at 150°C for 2 minutes). Dry time/temperature can be optimized by choice of co-solvents.

U-731 is compatible with ketones and esters but has limited compatibility with lower alcohols. Solution viscosities of less than 1 cP can be achieved with solids contents of 10%.

BLOCKING RESISTANCE

Uncured coated sheets placed face-to-face under a 1.0 lb/in² weight and stored in an oven at 42°C for 24 hours show no evidence of film transfer or blocking.

TYPICAL PROPERTIES*

| | |
|------------------|---------------------------|
| Solids | 60-70% in t-Butyl Acetate |
| Viscosity | 130-150 P (25°C) |
| APHA Color | 150 Max |
| Appearance | Clear Liquid |
| Specific Gravity | 1.04 (25°C) |

* Not to be used for specification purposes

REGULATORY LISTINGS

The components in Lumicryl® U-731 are either listed or exempt from listing due to compliance with polymer exemption criteria for the following International Chemical Inventories: AICS (Australia), DSL (Canada), IECSC (China), NZIoC (New Zealand), TSCA (United States)

One or more components of this product are not REACH registered. Import quantities may be subject to limitation.

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PACKAGING & AVAILABILITY

This product is experimental and subject to change. Evaluation samples and commercial quantities are available. Please contact your Estron Sales Representative for lead time and availability.

440 lb. / 199.5 kg in steel drum

STORAGE AND HANDLING

This product can polymerize prematurely under improper storage conditions. Therefore, store this product in tightly closed containers in a properly vented storage area away from heat, sparks, open flame, strong oxidizers, radiation, direct sunlight, and materials which may generate free radicals (e.g. initiators). Prevent moisture exposure and contamination by foreign materials. Use only non-sparking tools and limit storage time. Store containers at temperatures below 25 °C.

CONTACT INFORMATION

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