

TECHNICAL DATA SHEET

Energy Curable Resins

ADDITOL® DX

Liquid Photoinitiator Vehicle for Colored Inks

INTRODUCTION

ADDITOL DX is a eutectic liquid photoinitiator vehicle designed to simplify and shorten the process of formulating ultraviolet (UV) cured flexographic, lithographic and screen printing inks. ADDITOL DX provides surface and in-depth cure to dark colored UV inks and is compatible with common UV monomer, oligomer and vehicle choices.

PERFORMANCE HIGHLIGHTS

ADDITOL DX is characterized by:

- Pourable Liquid
- Ease of use
- Efficiency
- Reduced handling and storage of dry photoinitiators

SUGGESTED MARKET SEGMENT

Formulations containing ADDITOL DX may be applied via flexographic, lithographic or screen processes. ADDITOL DX is recommended for use in:

- Midweb Folding Cartons
- Narrow Web Tag and Label
- Credit Cards/Smart Cards
- Books and Magazine Covers
- General commercial
- Dry Offset Applications
- POP/Banner
- ContainersLoose Leaf
- CD/DVD/CDR
- CD/DVD/CDR

NOTES ON USE:

- Typical use levels are 5 to 10% (wt./wt.)
- Pigment type, concentration, and degree of dispersion will influence the proper level of ADDITOL DX for a given application

SPECIFICATIONS ⁽¹⁾	VALUE
Color, Gardner scale, max.	12
Appearance	Clear amber liquid
Viscosity, 25°C, cP/mPa·s	45-85

TYPICAL PHYSICAL PROPERTIES

Density, g/ml at 25°C	1.10
Flashpoint, °C (est.)	>100

GRAPH I

TYPICAL UV ABSORBANCE SPECTRA OF ADDITOL DX 0.001 CONCENTRATION IN METHANOL



(1) Test methods are available upon request.

STORAGE AND HANDLING

Before using ADDITOL DX, consult the **Safety Data Sheet** for additional information on hazards, handling procedures, and recommended protective equipment.

The maximum recommended storage temperature for ADDITOL DX is 38°C (100°F). Do not store in direct sunlight. Containers should be kept closed and away from oxidizing agents, acids, alkalies, and x-ray or ultraviolet radiation.

Over time ADDITOL DX may show signs of crystallization or precipitation. The efficacy of the photoinitiator blend will be affected by this crystallization. Thus, it will be necessary to treat the ADDITOL DX to redissolve the crystals.

Crystals typically begin to form 3-6 months after the last heat treatment of the ADDITOL DX. These crystals may be difficult to see. They may be transparent and needlelike, and tend to accumulate at the bottom of a container.

If crystals are noted, the container of ADDITOL DX should be heated at 60°C for some period of time (detailed below). The heated container should then be mixed by shaking or rolling to insure that the crystals are redissolved. Ovens or hotboxes are recommended methods of heating. Heating tapes should not be used.

The ADDITOL DX will be stable to crystallization for at least 3 months after this heat treatment. Multiple treatments of the same container are acceptable. Once the crystals are redissolved, the efficacy of the photoinitiator blend is restored. No detrimental effects on performance have been noted after heat treatment.

SUGGESTED HEAT TREATMENT FOR ADDITOL DX

CONTAINER SIZE	TEMPERATURE	TIME
1 quart or smaller	60° C	8 hours
1-5 gallons	60° C	12-24 hours
1 drum	60° C	24-48 hours

PRECAUTIONS

Avoid contact with eyes, skin and clothing. Direct contact with this material may cause moderate eye and skin irritation. Wash thoroughly after handling. Use with adequate ventilation. Keep container closed.

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

Worldwide Contact Info: www.allnex.com

Disclaimer: Allnex Group companies ("Allnex") decline any liability with respect to the use made by anyone of the information contained herein. The information contained herein represents Allnex's best knowledge thereon without constituting any express or implied guarantee or warranty of any kind (including, but not limited to, regarding the accuracy, the completeness or relevance of the data set out herein). Nothing contained herein shall be construed as conferring any license or right under any patent or other intellectual property rights of Allnex or of any third party. The information relating to the products is given for information purposes only. No guarantee or warranty is provided that the product and/or information is adapted for any specific use, performance or result and that product and/or information do not infringe any Allnex and/or third party intellectual property rights. The user should perform its own tests to determine the suitability for a particular purpose. The final choice of use of a product and/or information as well as the investigation of any possible violation of intellectual property rights of Allnex and/or third parties remains the sole responsibility of the user.

© 2013 Allnex Belgium SA. All rights reserved.