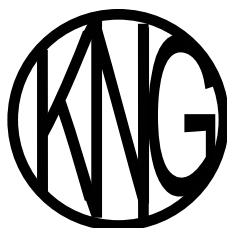

GLOBAL COATING & INK ADDITIVES, 2013-2018

**Dispersants
Foam Control
Rheology Modifiers
Slip/Rub
Wetting Agents**

A Multiclient Study

NOW AVAILABLE

August, 2014



KUSUMGAR, NERLFI & GROWNEY, INC.

45 Willow Street

Elmwood Park, NJ 07407

Phone: 201-773-0785

Fax: 201-773-8517

www.kusumgar-nerfi-growney.com

CRITICAL FORMULATION INGREDIENTS

Although additives generally comprise less than 5% of the weight of a coating or ink formulation they are critical components for product performance. Consumption of the five leading additives for coatings and inks in 2013 was 2.24 billion pounds, as supplied, worth \$4.66 billion. A 5% annual rate of growth is forecast through 2018.

Rheology modifiers are the largest additive type representing nearly 40% of the pounds in 2013. A wide variety of rheology modifiers are used depending on a products technology and the properties required. Cellulosic, synthetic and inorganic are the major rheology modifier categories. Dispersants are the second largest additive in volume with one-fifth of the pounds. They range from high volume polyacrylic/polycarboxylate types for TiO₂ and fillers in WB paints to highly specialized polymeric types for specific pigment use.

Foam control additives were third in volume representing 17% of the pounds in 2013. Products vary from higher performance silicone, surfactant and polymer-based products to the widely used mineral oil type products. Slip/rub materials were 13% of the volume. Silicone and wax products are used for slip/rub. In contrast to the other additive types where inks take less than 10% of the volume, about one-third of the slip/rub additives were used in inks.

Wetting agents were 11% of the additive pounds. They range from high volume alkoxyated surfactants to more specialized silicone, acrylic, acetylenic glycol derivatives and fluorosurfactants. In the alkoxyated surfactant category alkyl phenol ethoxylates continue to lose out to other products owing to environmental concerns.

The coating industry was an outlet for 92% of the additive volume in 2013 and 89% of the value. Inks are a much smaller outlet with 8% of the pounds and 11% of the dollars. Slip/rub additives were the largest type used for inks. Coating use is forecast to grow 5%/yr while ink growth is lower at 2%/yr.

Table 1 outlines coating and ink consumption in volume and the amount of additives they utilize. In 2013 the five leading additive types comprised 2.5% of the formulated coating weight while ink additives were 2.3% of the ink volume.

Table 1					
COATING AND INK VOLUMES & ADDITIVES CONSUMED, MM LB					
Technology	2013		2018		AGR
	Product	Additive	Product	Additive	
Coating	79,818	2,052.7	102,399	2,588.4	5
Ink	7,873	183.0	8,658	200.2	2
Total	87,691	2,235.7	111,057	2,788.6	5

THE STUDY

GLOBAL COATING & INK ADDITIVES, 2013-2018 characterizes consumption for base year 2013 and provides projections to the year 2018. The report gives a comprehensive analysis of global coating and ink additive consumption by region, industry, and technology. Growth rates, trends, recent developments, supplier structure, applications, and end users are assessed. Coating and ink consumption by region and end use is provided. The supplier structure of coating and ink products is provided.

An Executive Summary provides subscribers a concise, easy to read representation of the coating and ink additive industry. The Business Analysis summarizes consumption by industry and technology. The global coating and ink industries are analyzed in detail. A review of mergers and acquisitions is part of the Business Analysis. **GLOBAL COATING & INK ADDITIVES, 2013-2018** accurately portrays the industry in the identified regions and countries, and provides critical insights into future developments.

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OUR QUALIFICATIONS

Kusumgar, Nerlfi & Growney is a consulting firm specializing in market research and business analysis for the polymer and chemical industries. Members of the firm possess some 90 years of experience analyzing the coating, ink, and adhesive & sealant industries. Kusumgar, Nerlfi & Growney is dedicated to providing comprehensive and accurate information and insight on technology driven markets.

The information and analyses contained in **GLOBAL COATING & INK ADDITIVES, 2013-2018** was developed by Michael Growney, Minesh Kusumgar and Steven Nerlfi. No outside contractors were employed. Our expertise has been gained from conducting over 40 multiclient and numerous proprietary studies.

ADDITIONAL SERVICES

Kusumgar, Nerlfi & Growney's current multiclient project is **THE GLOBAL ADHESIVES INDUSTRY, 2014-2019**. The study will provide detailed information on formulated adhesive consumption by region, end use, and technology. Our earlier study on the global adhesives industry was completed in 2010.

Our recently completed studies include **GLOBAL PAINT & COATINGS, 2013-2018**, **THE GLOBAL SEALANTS INDUSTRY**, and **THE U.S. PAINT & COATINGS INDUSTRY, 2011-2016**. Interested parties are invited to contact Kusumgar, Nerlfi & Growney for brochures and additional information. Brochures can be obtained at www.kusumgar-nerlfi-growney.com. We welcome inquires for projects of a proprietary nature.

SUBSCRIPTION INFORMATION

GLOBAL COATING & INK ADDITIVES, 2013-2018 is available through subscription. The price of the study is \$12,000. Subscribers will receive 3 electronic copies (PDF) of the report. Additional copies are available upon request of the subscriber for \$750. A corporate use license is available for an additional \$1,500. To subscribe, please complete and sign the contract on the following page and return to Kusumgar, Nerlfi & Growney. For additional information please call Kusumgar, Nerlfi & Growney at 201-773-0785 (FAX: 201-773-8517) or e-mail us at nerlfikng@cs.com.

CONTRACT FOR GLOBAL COATING & INK ADDITIVES, 2013-2018

KUSUMGAR, NERLFI & GROWNEY, INC.
45 Willow Street
Elmwood Park, NJ 07407

Please initiate our participation in **GLOBAL COATING & INK ADDITIVES, 2013-2018**. We understand our subscription entitles us to three electronic copies (PDF) of the final report.

We agree that for a period of three years from publication to:

1. Not reproduce the study, in whole or in part, by any means.
2. Restrict use of the study to our own employees.
3. Prevent the disclosure of its contents, to the best of our ability, to any other firm or person.

We understand that we may disclose the contents of this study to any firm that we own more than half of, or to a company that maintains more than a half interest in our firm. We may use or disclose any information in the study which is public knowledge, in our possession before receiving the report, or that has been obtained from third parties, but not from this study.

Kusumgar, Nerlfi & Growney will take reasonable precautions to prevent disclosure of the contents of this study, except to subscribers, for a period of three years after it is issued.

We understand the fee for **GLOBAL COATING & INK ADDITIVES, 2013-2018** is \$12,000.

Kusumgar, Nerlfi & Growney will invoice us for the full amount upon acceptance of our participation, after a countersigned copy of this contract is returned to us for our records. We will pay this invoice within thirty days.

Accepted: Kusumgar, Nerlfi & Growney

Subscriber:

Signature

Signature

Name

Name

Title

Title

Date

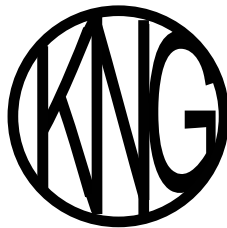
Date

**POLYMER AND CHEMICAL BUSINESS ANALYSIS
AND MARKET RESEARCH
ADDITIONAL SERVICES**

GLOBAL COATING & INK ADDITIVES, 2013-2018 is Kusumgar, Nerlfi & Growney's twenty-third multiclient study. Studies immediately available, or scheduled for completion, include:

- **THE GLOBAL ADHESIVES INDUSTRY**, September, 2010
- **THE U.S. PAINT & COATINGS INDUSTRY, 2011-2016**, March 2012
- **THE GLOBAL SEALANTS INDUSTRY**, October 2012
- **THE GLOBAL RADIATION-CURED PRODUCTS INDUSTRY**, May 2013
- **GLOBAL PAINT & COATINGS, 2013-2018**, February, 2014
- **THE GLOBAL ADHESIVES INDUSTRY, 2014-2019**, due 2015

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