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# **ADHESIVES IN DEVELOPING REGIONS**

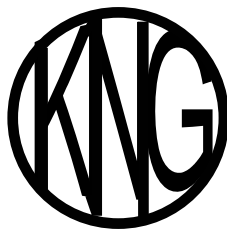
**Asia, Including Japan  
Latin America  
Eastern Europe  
Africa & Middle East**

**A Multiclient Study**

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**December, 2003**



**KUSUMGAR, NERLFI & GROWNEY**

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Adhesive growth in developing countries of the world is generally at multiples of two to five times that found in the U.S. and Western Europe. This rapid growth is being fueled by rising standards of living which are increasing the domestic consumption of goods. Many developing countries have undertaken political, social, and economic reforms to facilitate entry into the global economy. Investment and modernization of manufacturing facilities by investors has enabled developing countries to meet the local demand for goods, and also to expand their exports. Developing countries are increasing their share of the world's production of manufactured goods.

The four developing regions of the world covered in this study are Asia, Latin America, Eastern Europe, and Africa and the Middle East. Japan, a highly developed country, is included in the study to round out the Asian region. Adhesive consumption in developing regions of the world was 16.2 billion wet pounds worth \$7.2 billion in 2002, as highlighted in Table 1. Growth in constant dollars is placed at 5% per year through 2007. Adhesive consumption in Japan was \$1.5 billion and a sluggish 1% yearly rate of increase is forecast. The Japanese economy declined in both 2001 and 2002, along with adhesive demand in many end uses.

Adhesive usage in the Asian region, excluding Japan, was \$3.5 billion and a robust 8% annual increase is projected. China comprises nearly one-half of the sales dollars in this region with adhesive consumption forecast to expand at a 10% annual rate. India, Vietnam and other countries in the region are also seeing strong adhesive growth. Adhesive consumption in Latin American countries was \$1.3 billion in 2002 with Brazil and Mexico the largest users. Growth in many Latin American countries suffered in recent years owing to faltering economies. Demand in this region has recently begun to pick-up. Eastern European countries consumed some \$600 MM of adhesives in 2002. Strong growth is forecast for many countries in Eastern Europe as they prepare to enter the European Union. Africa and the Middle East consumed \$300 MM of adhesives with Turkey and South Africa larger users.

Forest product binders is the largest end use representing nearly 65% of the adhesive poundage and one-fifth of the dollars. Growth in these binders is forecast at a 4% annual rate with China experiencing a rapid rise in production as new board capacity continues to come on stream. Packaging adhesive consumption was \$950 MM in 2002 with \$250 MM used for flexible packaging. Packaging sophistication is growing in developing countries. Woodworking adhesive demand in developing countries was \$740 MM and a 5% yearly rate of increase is forecast as domestic furniture purchases are growing in many countries along with export volumes. Adhesives for pressure sensitive products totaled \$660 MM with a 6% annual rate of growth forecast. Consumer, footwear and construction adhesives each had sales of \$500-600 MM. Electronics was a \$300 MM end use with a 9% per year increase forecast as the industry recovers from the slowdown of 2001-2002. Disposable products and automotive were each \$250 MM outlets.

Formaldehyde-based adhesive consumption in developing regions was \$1.5 billion in 2002 with growth tracking the 4% annual increase in the forest product sector. Water-based adhesive consumption was \$2.1 billion, with over 85% based on emulsion polymers. Solvent-based adhesive usage in developing regions was \$1.5 billion with polyurethane and polychloroprene types accounting for two-thirds of the total. The 100% reactive category was worth \$1.2 MM and is largely comprised of epoxies, polyurethanes, cyanoacrylates, and anaerobics. Just over \$800 MM of hot melt adhesive was consumed, largely for packaging, disposable products, bookbinding and pressure sensitive products.

**Table 1**  
**CONSUMPTION OF ADHESIVES IN DEVELOPING REGIONS**

Region	2002		2007		%AGR
	\$Billion	%	\$Billion	%	
Japan	1.5	21	1.6	17	1
Asia, Excluding Japan	3.5	49	5.1	55	8
Latin America	1.3	18	1.4	15	2
Eastern Europe	0.6	8	0.8	9	6
Africa, Middle East	0.3	4	0.4	4	5
<b>TOTAL</b>	<b>7.2</b>	<b>100</b>	<b>9.2</b>	<b>100</b>	<b>5</b>

## THE STUDY

**ADHESIVES IN DEVELOPING REGIONS** characterizes adhesive consumption in some forty countries during 2002 and provides estimates for consumption in the year 2007. This 600 page report is a comprehensive analysis of adhesive consumption by end use, technology and type in each of the countries. A separate section of the report analyzes adhesive consumption by end use market. Adhesives by polymer type are also summarized in their own section of the study. A thorough business analysis is provided which includes profiles of the leading formulators.

Subscribers will find **ADHESIVES IN DEVELOPING REGIONS** the definitive reference work. Current participants, and those contemplating entry, will find the study essential in their planning process. Firms contemplating introducing new materials and technologies to the global marketplace will find the study particularly attractive.

**ADHESIVES IN DEVELOPING REGIONS** is based on over 300 interviews with formulators and raw materials suppliers. Additionally, the available literature was reviewed and analyzed. Kusumgar, Nerlfi & Growney's extensive knowledge of the industry, gained over the last three decades, insures an accurate and comprehensive report.

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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 60 years of experience analyzing the coating, ink, and adhesive industries. Kusumgar, Nerlfi & Growney is dedicated to providing comprehensive and accurate information and insight on technology driven markets.

The information and analyses contained in **ADHESIVES IN DEVELOPING REGIONS** was developed by Michael Growney, Minesh Kusumgar and Steven Nerlfi. No outside contractors were used. Our expertise has been gained from conducting over 35 multi-client and numerous proprietary studies.

## ADDITIONAL SERVICES

Kusumgar, Nerlfi & Growney's current project is **ADDITIVES, 2003-2007**. Completion of the study is expected in 2004. There is a progressive increase in the price of the study based on timing of subscription. Interested parties should contact Kusumgar, Nerlfi & Growney for the prospectus and additional information. **WATER-BASED PRODUCTS, 2004-2009** and **HOT MELT ADHESIVES, 2004-2009** will be available in 2005. These studies are updates of prior multiclient studies. Kusumgar, Nerlfi & Growney also welcomes inquiries for projects of a proprietary nature.

## SUBSCRIPTION INFORMATION

**ADHESIVES IN DEVELOPING REGIONS** is available through subscription. The price of the study is \$12,000 and includes 8 copies of the report. Additional copies are available upon request. 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 973/439-0030 or nerlfikng@cs.com.

# CONTRACT FOR ADHESIVES IN DEVELOPING REGIONS

**KUSUMGAR, NERLFI & GROWNEY**  
**One DeBaun Avenue C**  
**West Caldwell, NJ 07006**

Please initiate our participation in **ADHESIVES IN DEVELOPING REGIONS**. We understand our subscription entitles us to eight copies of this 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 that the fee for **ADHESIVES IN DEVELOPING REGIONS** is \$12,000 (U. S. dollars).

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

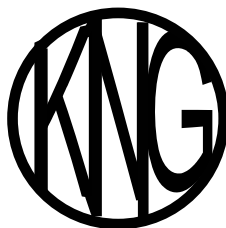
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## **ADDITIONAL SERVICES**

**ADHESIVES IN DEVELOPING REGIONS** is Kusumgar, Nerlfi & Growney's eighth multiclient study. Studies immediately available, or scheduled for completion, include:

- **RADIATION CURED PRODUCTS & SYSTEMS**, February, 1996
- **THE U. S. PAINT & COATINGS INDUSTRY**, June 1997
- **HOT MELT ADHESIVES**, May 1988
- **ADDITIVES**, June 1999
- **WATER-BASED PRODUCTS**, July, 2000
- **RADIATION CURED PRODUCTS**, July 2001
- **THE U.S. PAINT & COATINGS INDUSTRY, 2001-2006**, November 2002
- **ADDITIVES, 2003-2008**, Due Mid 2004
- **WATER-BASED PRODUCTS, 2004-2009**, Due Mid 2005
- **HOT MELT ADHESIVES, 2004-2009**, Due End 2005

Interested parties should contact Kusumgar, Nerlfi & Growney for subscription information. We also welcome inquires for projects of a proprietary nature.



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