

**See Beyond  
the Horizon**

**Completed  
4Q 2018**

***Uncertainty around  
true materials  
requirements is a  
huge risk for leading  
edge materials  
developers.***

**Major  
Products  
Covered**

**H<sub>2</sub>SO<sub>4</sub>  
H<sub>2</sub>O<sub>2</sub>  
HF  
HCl  
HNO<sub>3</sub>  
H<sub>3</sub>PO<sub>4</sub>  
NH<sub>4</sub>OH  
IPA**

Linx Consulting Industry  
Analysis Service

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**Linx Consulting Inc.**

## **BULK WET CHEMICAL REPORT**

**Second Edition**

Linx Consulting is pleased to announce the second edition of the BULK WET CHEMICAL REPORT. This report examines the leading bulk wet process chemicals used in the global semiconductor industry. The number and criticality of cleaning steps is increasing with each new technology node, as illustrated below:



This along with the use of single wafer processing, multi-step patterning and less recycle is driving demand for wet process chemicals used in cleaning and etch applications from approximately \$1.6 billion in 2018 to over \$2 billion in 2023.

The service is designed for marketers, product managers and executive management and provides guidance on the market growth of each segment (5 year CAGR % on a volume and value basis), and an independent view of the market dynamics including in-depth analysis on various supply and demand factors. This service will allow participants to understand their position in the global gases market, measure progress, and better plan their strategy and tactical initiatives.

## BULK WET CHEMICAL REPORT - SEGMENTATION

The report is designed to provide a detailed understanding of the current and future demand for process chemicals and relevant suppliers in the global semiconductor industry. This program investigates the selected largest process chemicals used in semiconductor manufacturing, on a volume and value basis, with a pricing analysis and reviewed supplier shares (by product and region) including:

Acids: H<sub>2</sub>SO<sub>4</sub>, H<sub>2</sub>O<sub>2</sub>, HF, HCl, HNO<sub>3</sub>, H<sub>3</sub>PO<sub>4</sub> Bases: NH<sub>4</sub>OH Solvents: IPA

### Illustrative Data Sample

This report provides a global market perspective by looking at each chemical listed above on a volume and value basis in each region, with supplier share by product, in 2018 with forecasts to 2023. Key regions covered as part of this analysis include USA, China, Europe, Japan, Korea, SEA and Taiwan.

Summary data, region by region analysis and product by product analysis is also available in a PowerPoint report. All data is embedded in PowerPoint charts, as well as an Excel file.

|                             |                 |                |
|-----------------------------|-----------------|----------------|
| <b>Product</b>              | <b>H2SO4</b>    |                |
| <b>2018 Volume (MT)</b>     | 76,000          |                |
| <b>2018 ASP (\$/KG)</b>     | \$ 1.35         | \$ 1.75        |
| <b>2018 TAM \$M</b>         | \$102.60        |                |
| <b>5 yr Volume CAGR (%)</b> | 6%              |                |
| <b>5 yr Price CAGR (%)</b>  | 1%              |                |
| <b>2023 Volume (MT)</b>     | 101,705         |                |
| <b>2023 TAM \$M</b>         | \$144           |                |
| <b>Share \$ Basis</b>       | <b>Supplier</b> | <b>% Share</b> |
| <b>Supplier 1</b>           | KMG             | 76%            |
| <b>Supplier 2</b>           | Kanto           | 14%            |
| <b>Supplier 3</b>           | HEM             | 10%            |
|                             |                 | 100%           |

### **Market Size Estimates**

All reports will be sent out as editable Excel format files to a designated contact at each client company. Companies participating in the service will be requested to give input on their views of market developments for each publication of the forecast.

### **Methodology**

The forecasts are based on the Linx Materials Forecast Model for IC materials demand internal process database and emerging technology analysis to develop unique segment forecasts. Forecasts will be delivered in volumes and revenues (USD).

### **Deliverables**

Deliverables include a report in PowerPoint of approximately 150 pages, as well as an Excel file with all data by product and by region.

### **Pricing**

The cost of the service is \$ 13,200 USD. Travel expenses associated with consulting time will be billed separately.

## SUBSCRIPTION AGREEMENT

Please enter our subscription to Linx Consulting Bulk Wet Chemical Report. The subscription includes a data file with updates supplied electronically. We understand that this report is available only by subscription. Subscription prices do not include sales tax if applicable. Linx will invoice us for the total amount, and we will pay this invoice within 30 days of receipt of invoice.

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|--------------------|----------------------------------|
| Company            | Address                          |
| Designated Contact | Designated Contact Email Address |
| Phone              | Purchase Order Number            |
| Signature          |                                  |

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