
Description: Flame retardant is a general term for the substances that prevent and reduce flammability of fuels or delay their combustion. Over the past 30 years, flame retardant and flame-resisting materials have played an important role in reducing losses of life and property caused by fire disasters. In 2005-2013, the market volume of global flame retardant grew at a CAGR of about 4.2%, to 2.055 million tons in 2013.

The global flame retardant market is mainly dominated by Albemarle, Chemtura and Clariant from the United States, Israel's ICL, Japan's ADEKA and Jiangsu Yoke Technology and Zhejiang Wansheng from China, which leads to a relatively higher concentration.

In terms of consumption regions, despite a higher consumption proportion in Europe, America and Japan, these markets were stable and their demands grew at a relatively slow pace. However, the Asian region including China but excluding Japan showed a double-digit growth, making it the most important driving force of the flame retardant markets around the world. In 2013, this region accounted for a roughly 31.1% market share of the global flame retardant, up nearly 13 percentage points from 2005.

Flame retardant can fall into halogen flame retardant (chlorine-based and bromine-based, etc.), phosphorus flame retardant and inorganic flame retardant, etc.

Bromine-based Flame Retardant: As a traditional variety, bromine-based flame retardant absolutely dominated general-purpose plastics and engineering plastics. But due to an increasingly stringent requirement from environmental protection, bromine-based flame retardants including HBCD and DECA are being phased out. The U.S. and Canadian governments had long reached agreement with Albemarle, Chemtura and ICL that the three would retreat from the DECA production agreement by the end of 2013. Japan began to prohibit HBCD in May 2014.

Organophosphorus Flame Retardant: With obvious advantages like environmental friendliness and safety, organophosphorus flame retardant is gradually substituting for halogen flame retardant (chlorine-based and bromine-based, etc.), with the market volume of global organophosphorus flame retardant in 2010-2013 representing a CAGR of 9.8%. And in 2013 alone, the market volume of organophosphorus flame retardant reached some 620 kt, accounting for 30% of the global total.

Although China's flame retardant industry started later than Europe, the United States and Japan, the output of flame retardant in China has maintained a rapid growth rate in recent years, with the output for 2013 approximating 987 kt, up 15.2% from a year earlier. At present, the demand for flame retardant in China accounts for roughly 60% of its total output. And as the industries like energy saving in buildings, electronics & electrical appliances and automobile manufacturing develop and the State adopted increasingly stringent policies on flame retardant, the market potential of flame retardant in China will be further released.

Currently, the Chinese flame retardant market is still dominated by halogen flame retardant (chlorine-based and bromine-based, etc.). However, in view of the factors such as environmental policies and market demand, a growing number of Chinese manufacturers have begun to turn to non-halogen flame retardant, especially organophosphorus flame retardant products. In 2013, the output of organophosphorus flame retardant in China reached more than 200 kt.

As the leading organophosphorus flame retardant manufacturer in China, Jiangsu Yoke Technology achieved an annual capacity of 100 kt in 2013 and planned to expand this capacity to around 160 kt/a. With a capacity of 36.55 kt/a, Zhejiang Wansheng ranked second in the organophosphorus flame retardant market in China. Besides, the company is planning to increase its capacity to 53.5 kt/a.

KEY TOPICS COVERED
- Policy environment, global market, status quo, competition pattern and outlook of China flame retardant industry;
- Supply & demand, competition pattern, and development of flame retardant market segments (including brominated flame retardant, phosphorus flame retardant and inorganic flame retardant) in China and beyond;
- Operation, flame retardant business, business in China, and development prospects of 13 global and 6 Chinese flame retardant enterprises.

Contents:

1. Overview of Flame Retardant Industry
   1.1 Definition and Classification
   1.2 Applications

2. Development of China Flame Retardant Industry
   2.1 Operating Environment
      2.1.1 Policies and Regulations
      2.1.2 International Market
      2.2 Status Quo
      2.3 Competition Pattern
   2.4 Influence from Upstream and Downstream Sectors
      2.4.1 Upstream Sector
      2.4.2 Downstream Sector
   2.5 Development Prospects and Prediction

3. Flame Retardant Market Segments
   3.1 Halogen Flame Retardant
      3.1.1 Supply & Demand
      3.1.2 Competition Pattern
      3.1.3 Development Outlook and Prediction
   3.2 Phosphorus Flame Retardant
      3.2.1 Supply & Demand
      3.2.2 Competition Pattern
      3.2.3 Development Prospects and Prediction
   3.3 Inorganic Flame Retardant
   3.4 Others

4. Major Global Flame Retardant Companies
   4.1 Albemarle
      4.1.1 Profile
      4.1.2 Operation
      4.1.3 Revenue Structure
      4.1.4 Operating Margin
      4.1.5 R&D and Investment
      4.1.6 Flame Retardant
      4.1.7 Business in China
      4.1.8 Development Forecast
   4.2 Chemtura
      4.2.1 Profile
      4.2.2 Operation
      4.2.3 Revenue Structure
      4.2.4 Operating Margin
      4.2.5 R&D and Investment
      4.2.6 Flame Retardant
      4.2.7 Business in China
      4.2.8 Development Forecast
   4.3 ICL
      4.3.1 Profile
      4.3.2 Operation
      4.3.3 Revenue Structure
      4.3.4 Operating Margin
      4.3.5 R&D and Investment
      4.3.6 Flame Retardant
      4.3.7 Business in China
      4.3.8 Development Forecast
   4.4 Clariant
      4.4.1 Profile
      4.4.2 Operation
      4.4.3 Revenue Structure
4.4.4 R&D and Investment
4.4.5 Flame Retardant
4.4.6 Business in China
4.4.7 Development Forecast
4.5 ADEKA
4.5.1 Profile
4.5.2 Operation
4.5.3 Revenue Structure
4.5.4 Operating Margin
4.5.5 Flame Retardant
4.5.6 Business in China
4.5.7 Development Forecast
4.6 Teijin
4.6.1 Profile
4.6.2 Flame Retardant
4.6.3 Business in China
4.7 AkzoNobel
4.7.1 Profile
4.7.2 Flame Retardant
4.7.3 Business in China
4.8 BASF
4.8.1 Profile
4.8.2 Flame Retardant
4.8.3 Business in China
4.9 Dupont
4.9.1 Profile
4.9.2 Flame Retardant
4.9.3 Business in China
4.10 Italmatch Chemicals
4.10.1 Profile
4.10.2 Flame Retardant
4.10.3 Business in China
4.11 Lanxess Group
4.11.1 Profile
4.11.2 Flame Retardant
4.11.3 Business in China
4.12 DOW
4.12.1 Profile
4.12.2 Flame Retardant
4.12.3 Business in China
4.13 Dover Chemical

5. Main Flame Retardant Companies in China
5.1 Jiangsu Yoke Technology
5.1.1 Profile
5.1.2 Operation
5.1.3 Revenue Structure
5.1.4 Gross Margin
5.1.5 R&D and Investment
5.1.6 Clients & Suppliers
5.1.7 Flame Retardant
5.1.8 Development Forecast
5.2 Zhejiang Wansheng Co., Ltd.
5.2.1 Profile
5.2.2 Operation
5.2.3 Revenue Structure
5.2.4 Gross Margin
5.2.5 R&D and Investment
5.2.6 Clients & Suppliers
5.2.7 Flame Retardant Business
5.2.8 Development Forecast
5.3 Shouguang Weidong Chemical Co., Ltd.
5.4 Weifang Brother Chemical Co., Ltd.
5.5 Shouguang Shen Runfa Ocean Chemical Industry Co., Ltd.
5.6 Tianjin Lianrui Flame Retardant Material Co., Ltd.

6. Summary and Forecast

6.1 Summary

6.2 Forecast

Selected Charts

Classification of Flame Retardant by Application
Classification and Advantages & Disadvantages of Flame Retardant by Composition
Performance: Brominated Flame Retardant vs. Phosphorus Flame Retardant vs. Inorganic Flame Retardant
Downstream Consumption Structure of Global Flame Retardant
Main Flame Retardant Products and Their Applications
Policies and Regulations on Flame Retardant in China, 2005-2013
Market Volume of Global Flame Retardant, 2005-2013
Market Volume of Global Flame Retardant by Region, 2005-2013
Capacity of Major Flame Retardant Manufacturers by Type as of the end of 2013
Market Price (Low-end Price) Trend of Liquid Chlorine (99.6%) in China by Region, 2008-2014
Market Price (Middle Price) Trend of Liquid Chlorine (99.6%) in China by Region, 2008-2014
Market Price (High-end Price) Trend of Liquid Chlorine (99.6%) in China by Region, 2008-2014
Price Trend of Yellow Phosphorus in China, 2006-2014
Output and YoY Growth of Plastic Products in China, 2006-2014
Planned/Ongoing Flame Retardant Projects in China, as of June 2014
Capacity Structure (%) of Global Bromine Series Product Manufacturers, 2012-2013
Market Volume and YoY Growth of Global Organophosphate Flame Retardant, 2010-2013
Revenue and YoY Growth of Albemarle, 2008-2014
Net Income and YoY Growth of Albemarle, 2008-2014
Revenue of Albemarle by Division, 2010-2013
Operating Margin of Albemarle by Division, 2008-2014
R&D Costs and % of Total Revenue of Albemarle, 2008-2014
Capital Expenditure and YoY Growth of Albemarle, 2008-2014
Some Flame Retardant Products of Albemarle
Distribution of Albemarle's Flame Retardant Business-related Facilities, 2013
Albemarle's Revenue from Flame Retardant Business and YoY Growth, 2008-2013
Revenue and Net Income of Albemarle, 2012-2016E
Primary Products and Commodities of Chemtura and Their Applications
Revenue and Net Income of Chemtura, 2009-2014
Revenue of Chemtura by Division, 2011-2014
Revenue Structure of Chemtura by Region, 2013
Operating Margin of Chemtura by Division, 2011-2014
R&D Costs and % of Total Revenue of Chemtura, 2009-2014
Revenue and Net Income of Chemtura, 2012-2016E
ICL’s Main Products and Ranking in Global Market, as of the end of 2013
Capacity of ICL’s Main Products, as of the end of 2013
Output of ICL’s Main Products, 2013
Revenue and Net Income of ICL, 2009-2014
Revenue of ICL by Division, 2010-2014
Revenue of ICL by Region, 2010-2014
Operating Margin of ICL by Division, 2010-2014
R&D Costs and % of Total Revenue of ICL, 2009-2014
ICL's Revenue from Flame Retardant Business, 2010-2013
List of Companies under ICL in China
Revenue and Net Income of ICL, 2012-2016E
Revenue and Net Income of Clariant, 2009-2014
Revenue Structure of Clariant by Division, 2013
Revenue Structure of Clariant by Region, 2013
R&D Costs and % of Total Revenue of Clariant, 2009-2014
Clariant’s Revenue and YoY Growth of Clariant in China, 2009-2014
Clariant’s Major Subsidiaries, 2013
Revenue and Net Income of Clariant, 2012-2016E
ADEKA Main Business and Products
Revenue and Net Income of ADEKA, FY2009-FY2013
Revenue of ADEKA by Segment, FY2009-FY2013
Operating Margin of ADEKA by Division, FY2009-2013
ADEKA's Main Flame Retardant Products and Application
Some of ADEKA's Subsidiaries in China
Revenue and Net Income of ADEKA, 2012-2016E
Teijin's Major Manufacturers in China and Their Main Business
AkzoNobel's Flame Retardant and Flame Retardant Synergist Products and Their Application
BASF's Flame Retardant Products and Their Application
Dupont's New Flame Retardant Products and Their Application
Production Bases and Products of LANXESS in China and Market Application
Dow's Flame Retardant Products and Their Application
Jiangsu Yoke Technology's Subsidiaries and Their Primary Business
Revenue and Net Income of Jiangsu Yoke Technology, 2009-2014
Revenue of Jiangsu Yoke Technology by Product, 2010-2013
Revenue of Jiangsu Yoke Technology by Region, 2010-2013
Gross Margin of Jiangsu Yoke Technology by Product, 2010-2014
R&D Costs and % of Total Revenue of Jiangsu Yoke Technology, 2010-2013
Jiangsu Yoke Technology's Revenue from Top 5 Clients and % of Total Revenue, 2010-2013
Jiangsu Yoke Technology's Procurement from Top 5 Suppliers and % of Total Procurement, 2010-2013
Jiangsu Yoke Technology's Revenue from Flame Retardant and % of Total Revenue, 2010-2013
Revenue and Net Income of Jiangsu Yoke Technology, 2012-2016E
Revenue of Zhejiang Wansheng by Product, 2011-2013
Revenue of Zhejiang Wansheng by Region, 2011-2013
Gross Margin of Zhejiang Wansheng by Product, 2011-2013
R&D Costs and % of Total Revenue of Zhejiang Wansheng, 2011-2013
Zhejiang Wansheng's Fundraising Project through Planned IPO and Flame Retardant by Segmented Product, Apr. 2014
Zhejiang Wansheng's Revenue from Top 5 Clients and % of Total Revenue, 2011-2013
Name List, Sales Products and Revenue Contribution of Zhejiang Wansheng's Top 5 Clients, 2013
Zhejiang Wansheng's Procurement from Top 5 Suppliers and % of Total Procurement, 2011-2013
Name List, Procurement and Procurement Contribution of Zhejiang Wansheng's Top 5 Suppliers, 2013
Capacity, Output, Capacity Utilization and Sales-output ratio of Organophosphorus Flame Retardant of Zhejiang Wansheng, 2011-2013
Sales Breakdown of Flame Retardant of Zhejiang Wansheng by Segmented Product and Sales Value, 2011-2013
Sales Mode of Flame Retardant of Zhejiang Wansheng by Segmented Product and Sales Value, 2011-2013
Revenue and Net Income of Zhejiang Wansheng, 2012-2016E
Capacity and Major Application of Brominated Flame Retardant Products of Weifang Brother Chemical by Segmented Product
Market Volume and YoY Growth of Global Flame Retardant, 2012-2016E
Market Volume of Global Flame Retardant by Region, 2012-2016E
Market Volume and YoY Growth of Global Organophosphorus Flame Retardant, 2012-2016E

Ordering:
Order Online - http://www.researchandmarkets.com/reports/2885189/
Order by Fax - using the form below
Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct and select the format(s) you require.

- **Product Name:** Global and Chinese Flame Retardant Industry Report, 2014-2016
- **Web Address:** [http://www.researchandmarkets.com/reports/2885189/](http://www.researchandmarkets.com/reports/2885189/)
- **Office Code:** SCH3CQVN

Product Formats
Please select the product formats and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Hard Copy</th>
<th>USD 2500 + USD 58 Shipping/Handling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic (PDF) - Single User</td>
<td>USD 2300</td>
<td></td>
</tr>
<tr>
<td>Electronic (PDF) - Enterprisewide</td>
<td>USD 3700</td>
<td></td>
</tr>
</tbody>
</table>

* Shipping/Handling is only charged once per order.

Contact Information
Please enter all the information below in **BLOCK CAPITALS**

<table>
<thead>
<tr>
<th>Title:</th>
<th>Mr □ Mrs □ Dr □ Miss □ Ms □ Prof □</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td></td>
</tr>
<tr>
<td>Last Name:</td>
<td></td>
</tr>
<tr>
<td>Email Address: *</td>
<td></td>
</tr>
<tr>
<td>Job Title:</td>
<td></td>
</tr>
<tr>
<td>Organisation:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>City:</td>
<td></td>
</tr>
<tr>
<td>Postal / Zip Code:</td>
<td></td>
</tr>
<tr>
<td>Country:</td>
<td></td>
</tr>
<tr>
<td>Phone Number:</td>
<td></td>
</tr>
<tr>
<td>Fax Number:</td>
<td></td>
</tr>
</tbody>
</table>

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:
Account number 833 130 83
Sort code 98-53-30
Swift code ULSBIE2D
IBAN number IE78ULSB98533083313083
Bank Address Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:
Marketing Code: __________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World