



[CLICK TO VIEW](#)

[Table of Contents 2](#)

[List of Tables & Charts 3](#)

[Study Overview 4](#)

[Sample Text, Table & Chart 5](#)

[Sample Profile, Table & Forecast 6](#)

[Order Form 7](#)

[About Freedonia, Custom Research, Related Studies, Corporate Use License 8](#)

# World HVAC Equipment

---

Industry Study with Forecasts for **2014 & 2019**

---

Study #2637 | May 2010 | \$5900 | 318 pages

---

[www.freedoniagroup.com](http://www.freedoniagroup.com)



**The Freedonia Group**

767 Beta Drive

Cleveland, OH • 44143-2326 • USA

Toll Free US Tel: 800.927.5900 or +1 440.684.9600

Fax: +1 440.646.0484

E-mail: [info@freedoniagroup.com](mailto:info@freedoniagroup.com)

## Table of Contents

### EXECUTIVE SUMMARY

### MARKET ENVIRONMENT

General .....	4
World Population Outlook .....	5
World Urbanization Patterns .....	7
World Household Formation Patterns .....	8
World Economic Overview .....	10
Recent Historical Trends .....	10
World Economic Outlook .....	12
Fixed Investment Trends .....	16
Personal Income & Expenditure Trends .....	18
Building Construction Expenditure Trends .....	20
Climatic & Cultural Factors .....	22
Pricing Patterns .....	24
Legal & Regulatory Issues .....	25
Montreal Protocol .....	25
Kyoto Protocol .....	27
Energy Efficiency .....	29
Technology & Product Innovation .....	30

### SUPPLY & DEMAND

General .....	33
World HVAC Equipment Markets .....	34
Regional Sales Trends .....	34
Products .....	38
Room Air Conditioners .....	39
Unitary Air Conditioners .....	41
Other Cooling Equipment .....	43
Warm Air Furnaces .....	44
Boilers & Other Heating Equipment .....	46
World HVAC Equipment Production .....	49
International Trade Flows .....	52

### NORTH AMERICA

North America .....	54
Supply & Demand .....	54
Outlook & Suppliers .....	56
United States .....	59
Canada .....	65
Mexico .....	70

### WESTERN EUROPE

Western Europe .....	75
Supply & Demand .....	75
Outlook & Suppliers .....	78
France .....	81
Germany .....	86

Italy .....	91
Spain .....	96
United Kingdom .....	101
Other Western Europe .....	106

### ASIA/PACIFIC

Asia/Pacific .....	113
Supply & Demand .....	113
Outlook & Suppliers .....	116
Australia .....	119
China .....	124
India .....	130
Indonesia .....	135
Japan .....	140
South Korea .....	145
Other Asia/Pacific .....	150

### OTHER REGIONS

Central & South America .....	157
Brazil .....	162
Other Central & South America .....	167
Eastern Europe .....	172
Poland .....	177
Russia .....	182
Other Eastern Europe .....	187
Africa/Mideast .....	192
Turkey .....	197
Other Africa/Mideast .....	202

### INDUSTRY STRUCTURE

General .....	207
Industry Composition .....	208
Market Share .....	211
Product Development & Manufacturing .....	214
Marketing .....	216
Distribution .....	218
Cooperative Agreements .....	219
Financial Requirements .....	226
Mergers, Acquisitions & Industry Restructuring .....	228

### COMPANY PROFILES

Chunlan Group .....	232
Daikin Industries .....	234
Danfoss A/S .....	239
Dectron Internationale .....	246
Dunham-Bush Holding Berhad .....	248
Elco Holdings .....	251
Electrolux AB .....	253

Emerson Electric .....	254
GD Midea Holding .....	259
Goodman Global .....	261
Gree Electric Appliances .....	263
Haier Group .....	266
Ingersoll-Rand plc .....	269
Johnson Controls .....	274
Lennox International .....	278
LG Electronics .....	282
Nortek Incorporated .....	284
Paloma Industries .....	289
Panasonic Corporation .....	292
Samsung Electronics .....	295
SANYO Electric .....	297
Sharp Corporation .....	300
Smiths Group .....	302
Tecumseh Products .....	304
United Technologies .....	306
Volta Limited .....	313
Whirlpool Corporation .....	315

## List of Tables/Charts

### EXECUTIVE SUMMARY

1 Summary Table .....	3
-----------------------	---

### MARKET ENVIRONMENT

1 World Population by Region .....	6
2 World Urban Population by Region .....	8
3 World Households by Region .....	9
4 World Gross Domestic Product by Region ..	16
5 World Fixed Investment by Region .....	18
6 World Per Capita GDP by Region .....	20
7 World Building Construction Expenditures by Region .....	22

### SUPPLY & DEMAND

1 World HVAC Equipment Demand by Region	36
Cht World HVAC Equipment Demand by Region, 2009 .....	37
Cht World HVAC Equipment Demand Growth by Region, 2009-2014 .....	38
2 World HVAC Equipment Demand by Product .....	39

(continued on following page)

## List of Tables/Charts

(continued from previous page)

3	World Room Air Conditioner Demand by Region .....	41
4	World Unitary Air Conditioner Demand by Region .....	43
5	World Other Cooling Equipment Demand by Region .....	44
6	World Warm Air Furnace Demand by Region .....	46
7	World Boiler & Other Heating Equipment Demand by Region .....	49
8	World HVAC Equipment Shipments by Region .....	51
Cht	World HVAC Equipment Shipments by Region, 2009 .....	52
9	World HVAC Equipment Net Exports by Region .....	53

### NORTH AMERICA

1	North America: HVAC Equipment Supply & Demand.....	56
2	North America: HVAC Equipment Demand by Type & Market .....	58
3	United States: HVAC Equipment Supply & Demand.....	62
4	United States: HVAC Equipment Demand by Type & Market .....	64
5	Canada: HVAC Equipment Supply & Demand.....	67
6	Canada: HVAC Equipment Demand by Type & Market .....	69
7	Mexico: HVAC Equipment Supply & Demand.....	72
8	Mexico: HVAC Equipment Demand by Type & Market .....	74

### WESTERN EUROPE

1	Western Europe: HVAC Equipment Supply & Demand.....	78
2	Western Europe: HVAC Equipment Demand by Type & Market .....	80
3	France: HVAC Equipment Supply & Demand.....	83
4	France: HVAC Equipment Demand by Type & Market .....	85
5	Germany: HVAC Equipment Supply & Demand.....	88
6	Germany: HVAC Equipment Demand by Type & Market .....	90

7	Italy: HVAC Equipment Supply & Demand ..	93
8	Italy: HVAC Equipment Demand by Type & Market.....	95
9	Spain: HVAC Equipment Supply & Demand ..	98
10	Spain: HVAC Equipment Demand by Type & Market .....	100
11	United Kingdom: HVAC Equipment Supply & Demand.....	103
12	United Kingdom: HVAC Equipment Demand by Type & Market .....	105
13	Other Western Europe: HVAC Equipment Supply & Demand.....	108
14	Other Western Europe: HVAC Equipment Demand by Type & Market .....	110
15	Other Western Europe: HVAC Equipment Demand by Country .....	112

### ASIA/PACIFIC

1	Asia/Pacific: HVAC Equipment Supply & Demand.....	116
2	Asia/Pacific: HVAC Equipment Demand by Type & Market .....	118
3	Australia: HVAC Equipment Supply & Demand.....	121
4	Australia: HVAC Equipment Demand by Type & Market .....	123
5	China: HVAC Equipment Supply & Demand.....	127
6	China: HVAC Equipment Demand by Type & Market .....	129
7	India: HVAC Equipment Supply & Demand.....	132
8	India: HVAC Equipment Demand by Type & Market .....	134
9	Indonesia: HVAC Equipment Supply & Demand.....	137
10	Indonesia: HVAC Equipment Demand by Type & Market .....	139
11	Japan: HVAC Equipment Supply & Demand.....	142
12	Japan: HVAC Equipment Demand by Type & Market .....	144
13	South Korea: HVAC Equipment Supply & Demand.....	147
14	South Korea: HVAC Equipment Demand by Type & Market .....	149
15	Other Asia/Pacific: HVAC Equipment Supply & Demand.....	152
16	Other Asia/Pacific: HVAC Equipment Demand by Type & Market .....	154
17	Other Asia/Pacific: HVAC Equipment Demand by Country .....	156

### OTHER REGIONS

1	Central & South America: HVAC Equipment Supply & Demand.....	159
2	Central & South America: HVAC Equipment Demand by Type & Market .....	161
3	Brazil: HVAC Equipment Supply & Demand.....	164
4	Brazil: HVAC Equipment Demand by Type & Market .....	166
5	Other Central & South America: HVAC Equipment Supply & Demand .....	169
6	Other Central & South America: HVAC Equipment Demand by Type & Market .....	171
7	Eastern Europe: HVAC Equipment Supply & Demand.....	174
8	Eastern Europe: HVAC Equipment Demand by Type & Market .....	176
9	Poland: HVAC Equipment Supply & Demand.....	179
10	Poland: HVAC Equipment Demand by Type & Market .....	181
11	Russia: HVAC Equipment Supply & Demand.....	184
12	Russia: HVAC Equipment Demand by Type & Market .....	186
13	Other Eastern Europe: HVAC Equipment Supply & Demand.....	189
14	Other Eastern Europe: HVAC Equipment Demand by Type & Market .....	191
15	Africa/Mideast: HVAC Equipment Supply & Demand.....	194
16	Africa/Mideast: HVAC Equipment Demand by Type & Market .....	196
17	Turkey: HVAC Equipment Demand Supply & Demand.....	199
18	Turkey: HVAC Equipment Demand by Type & Market .....	201
19	Other Africa/Mideast: HVAC Equipment Supply & Demand.....	204
20	Other Africa/Mideast: HVAC Equipment Demand by Type & Market .....	206

### INDUSTRY STRUCTURE

1	World HVAC Equipment Sales by Company, 2009.....	210
Cht	World HVAC Equipment Market Share by Company, 2009.....	211
2	Selected Cooperative Agreements.....	222
3	Selected Acquisitions & Divestitures.....	229

[Click here to purchase online](#)

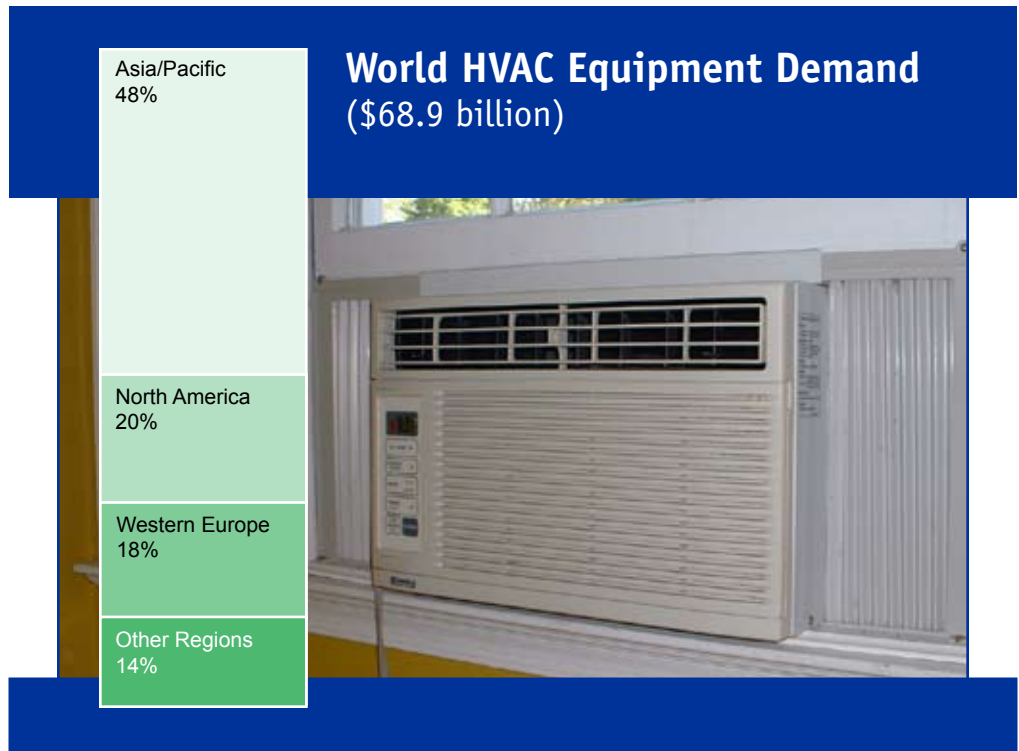
*Demand will benefit from recovery in the key US market for HVAC equipment, which will rebound from dismal levels in 2009. Above-average growth will also occur in China and India.*

## Global demand to rise 6.2% yearly through 2014

Global demand for HVAC equipment is projected to rise 6.2 percent per year through 2014 to \$93.2 billion. Demand will benefit from recovery in the key US market, which will rebound from dismal levels in 2009. Demand growth in the Asia/Pacific region will also outpace the global average, increasing 7.1 percent per year through 2014. China will be the fastest growing national market and comprise about 40 percent of the growth in global demand. Above-average growth will also occur in India due to solid gains in building construction expenditures, a growing number of households and rising per capita incomes.

## US demand to advance 8.1% annually

Despite a modest outlook in the shorter term, US demand for HVAC equipment is expected to rise 8.1 percent per year through 2014. Gains will result from recovery in residential building construction expenditures, which plummeted in 2009 due to the economic recession. Advances in other developed areas, such as Canada and Japan, will be slower, reflecting high penetration rates and modest gains. Low air conditioning system ownership rates in Western Europe (relative to other industrialized nations) will present opportunities, although gains will be limited by below-average growth in building construction expenditures.



## Cooling equipment gains to continue outpacing heating equipment

Cooling equipment growth will continue to outpace heating equipment gains through 2014, reflecting the lower penetration rates of air conditioning equipment. Among products, room air conditioners will post the strongest gains worldwide. Rising income levels in Asia, especially China, will bolster demand for room air conditioners. In Western Europe, mini-split room air conditioners will post solid advances due to the lack of ductwork in most European homes. Other cooling equipment such as chillers will post solid demand gains due to rising nonresidential construction expenditures.

## China has grown into the world's leading supplier of HVAC equipment

The largest national industries are those of China, the US and Japan. China has grown into the world's leading supplier of HVAC equipment, taking advantage not only of its inexpensive labor pool, but also of favorable exchange rates, which have made pricing of Chinese goods especially competitive. China exports products to the US, Western Europe and throughout Asia. US production of HVAC equipment was adversely impacted in 2009 by the poor domestic market, but is expected to recover in conjunction with a rebound in US demand.

Copyright 2010 The Freedonia Group, Inc.

[Click here to purchase online](#)



## Sample Text, Table & Chart

### ASIA/PACIFIC

Room air conditioners are the most common product in these markets. These items are sold through retail chains such as GOME Electrical Appliances and Suning Appliance, as well as through franchise and department stores. Room air conditioners, especially window units, benefit from their low cost and ease of use (as they require no ductwork in the building). Heating equipment demand is limited in the Asia/Pacific region due to the relative lack of heating needed throughout much of the region.

China's HVAC equipment shipments are forecast to grow at a rate of approximately 10 percent annually to \$1.5 billion by 2019, estimating increasing demand and resulting in a significant portion of the nation's total production plus. Industry output is expected to continue to grow in emerging markets and rising demand for HVAC products in a number of export markets. Room air conditioners are a major destination for Chinese exports, while additional investment by foreign multinational corporations in manufacturing plants will also help boost domestic manufacturing capacity and output.

The Chinese industry exports throughout the Asia/Pacific region, as well as to other developing areas. In addition to major local producers such as GD Midea, Gree Electric Appliances and Haier Group, multinational companies which maintain manufacturing activities in China include Daikin Industries, Danfoss, Emerson Electric, Johnson Controls, LG, Matsushita and SANYO Electric (Panasonic).

Gree's Chinese facilities include its Zhuhai facility, which has the capacity to manufacture 17 million air conditioners per year. The company also has a plant in Hefei which has the capacity to produce 10 million air conditioners annually. In Qingdao, Haier's operates its 490,245-square-meter headquarters site, which operates as an industrial Park. Among products made at this complex are residential air conditioners.

128

Copyright 2010

**SAMPLE  
TEXT**

TABLE VI-5

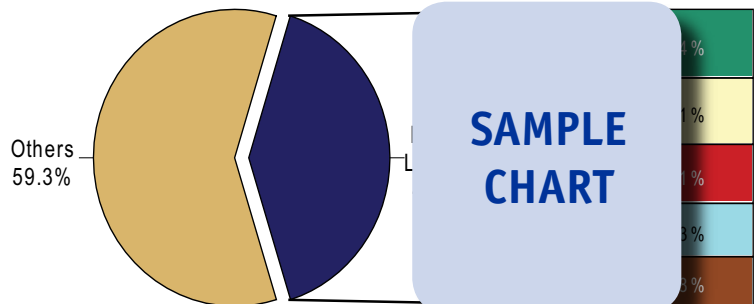
CHINA: HVAC EQUIPMENT SUPPLY & DEMAND  
(million dollars)

Item	1999	2004	2009	2014	2019
Population (million persons)	1,212	1,328	1,370	1,412	1,454
Gross Domestic Product (bil 2008\$)	10,000	16,000	24,000	32,000	40,000
Gross Fixed Investment (bil 2008\$)	5,000	8,000	12,000	16,000	20,000
Building Construct Expend (bil 2008\$)	2,000	3,000	4,000	5,000	6,000
\$ HVAC equipment/capita	8.3	12.0	17.5	22.7	27.5
\$ HVAC equipment/000\$ GDP	0.083	0.075	0.071	0.071	0.069
\$ HVAC equipment/000\$ GFI	0.167	0.125	0.083	0.063	0.050
\$ HVAC equipment/000\$ construct	4.0	4.0	3.0	2.0	1.7
HVAC Equipment Demand	100	150	200	250	300
net exports	0	0	0	0	0
HVAC Equipment Shipments	100	150	200	250	300

**SAMPLE  
TABLE**

CHART VIII-1

WORLD HVAC EQUIPMENT MARKET SHARE BY COMPANY  
(\$68.9 billion, 2009)



**SAMPLE  
CHART**

## Sample Profile, Table & Forecast

**TABLE VI-6**  
**CHINA: HVAC EQUIPMENT DEMAND BY TYPE & MARKET**  
 (million dollars)

Item	1999	2004	2009	2014	2019
Building Construct Expend (bil 2008\$)					99
\$ HVAC equipment/000\$ construct					4
HVAC Equipment Demand					10
By Type:					
Cooling Equipment					10
Room Air Conditioners					10
Unitary Air Conditioners					5
Other Cooling Equipment					5
Heating Equipment					0
Warm Air Furnaces					5
Boilers/Other Heating Equip					5
By Market:					
Residential					5
Commercial					5
Select HVAC Equip Demand (000 units)					
Unitary Air Conditioners					0
Room Air Conditioners	1				0
Warm Air Furnaces					50

### COMPANY PROFILES

#### Voltas Limited

Voltas House, Block A  
 Dr. Babasaheb Ambedkar Road  
 Chinchpokli, Mumbai 40003  
 India  
 91-22-6665-6666  
 http://www.voltas.com

Revenues:  
 Geographic  
 Middle East  
 Employer

Key Products: screw, scroll and semi-hermetic compressors; and window and split room air conditioning units.

Voltas Limited, a member of Tata Group (India), manufactures and sells air conditioning and refrigeration equipment, materials handling equipment, water management and treatment products, textile machinery, and mining and construction equipment. The Company operates through four segments: Electro-Mechanical Projects and Services, Engineering Products and Services, Unitary Cooling Products for Comfort and Commercial Use, and Others.

The Company participates in the world HVAC industry through the Electro-Mechanical Projects and Services, and the Unitary Cooling Products for Comfort and Commercial Use segments. Through these segments, the Company produces HVAC systems and air conditioners, among other products.

**SAMPLE  
PROFILE**

**SAMPLE  
TABLE**

“HVAC equipment demand in China is projected to increase 9.3 percent annually through 2014 to \$28.7 billion. Although sales gains will moderate from the pace of the 1999-2009 period, Chinese product demand will continue to outpace growth in other parts of the world. HVAC equipment demand will be spurred by strong gains in both residential and nonresidential building construction activity as industrialization efforts continue and income levels climb.”  
 --Section VI, pg. 127

ONLINE: www.freedoniagroup.com

MAIL: Print out and complete the order form and send to The Freedonia Group (see address at the bottom of this form)

PHONE: Call toll free, 800.927.5900 (US) or + 1 440.684.9600

FAX: + 1 440.646.0484 (US)

EMAIL: info@freedoniagroup.com

Free Handling & Shipping

There is NO charge for handling or UPS shipping in the US. Expect delivery in 3 to 5 business days. Outside the US, Freedonia provides free airmail service. Express delivery is available at cost.

Orders Outside of the US

Checks must be made payable in US funds, drawn against a US bank and mailed directly to The Freedonia Group. For wire transfers please contact our customer service department at info@freedoniagroup.com. Credit cards accepted.

Credit Card Orders

For convenience, Freedonia accepts American Express, MasterCard or Visa. Credit card purchases must include account number, expiration date and authorized signature.

Save 15%

If you order three (3) different titles at the same time, you can receive a 15% discount. If your order is accompanied by a check or wire transfer, you may take a 5% cash discount (discounts do not apply to Corporate Use Licenses).

Corporate Use License

Now every decision maker in your organization can act on the key intelligence found in all Freedonia studies. For an additional \$2600, companies receive unlimited use of an electronic version (PDF) of the study. Place it on your intranet, e-mail it to coworkers around the world, or print it as many times as you like,

Click here to learn more about the Corporate Use License

ORDER FORM

F-WEB.2637

World HVAC Equipment..... \$5900

Corporate Use License (add to study price) \* + \$2600

Additional Print Copies @ \$600 each \*

Total (including selected option) \$

Enclosed is my check (5% discount) drawn on a US bank and payable to The Freedonia Group, Inc., in US funds (Ohio residents add 7.75% sales tax)

Bill my company American Express MasterCard Visa

Credit Card #

Expiration MM YY

Signature

Name

Title

Company

Division

Street (No PO Box please)

City/State/Zip

Country

Phone Fax

Email

\* Please check appropriate option and sign below to order an electronic version of the study.

Corporate Use License Agreement

The above captioned study may be stored on the company's intranet or shared directory, available to company employees. Copies of the study may be made, but the undersigned represents that distribution of the study will be limited to employees of the company.

Signature

Individual Use License Agreement

The undersigned hereby represents that the above captioned study will be used by only individual(s) who are employees of the company and that the study will not be loaded on a network for multiple users. In the event that usage of the study changes, the Company will promptly notify Freedonia of such change and will pay to Freedonia the appropriate fee based on Freedonia's standard fee schedule then in effect. Note: Entire company corporate use license, add \$2600; one additional user, add \$600; two additional users, add \$1200; three additional users, add \$1800.

Signature

**OTHER STUDIES**

**Commercial Refrigeration Equipment**

Demand for commercial refrigeration equipment in the US is forecast to rebound through 2014, growing 7.2% annually. Growth will be strongest for the largest product segment, transportation systems. Distribution will post the strongest market gains, while foodservice remains the largest segment. This study analyzes the \$6.6 billion US commercial refrigeration equipment industry, with forecasts for 2014 and 2019 by market and product. It also evaluates company market share and profiles industry players.

#2661 ..... July 2010 ..... \$4800

**Insulation**

US demand for insulation materials will rise 7.4% annually through 2014, driven by a recovery in residential construction. Fiberglass insulation will offer the best growth opportunities and will surpass foamed plastic as the largest segment in value terms by 2014. Cellulose insulation will post the fastest growth from a small base. This study analyzes the \$7.1 billion US insulation industry, with forecasts for 2014 and 2019 by product, market and region. It also evaluates company market share and profiles industry players.

#2628 ..... June 2010 ..... \$4900

**World Major Household Appliances**

Global major appliance demand will rise 2.8% yearly through 2013, driven primarily by market penetration in developing countries. In developed regions, appliance sales will depend mainly on steady replacement demand, new home building and the development of new features that prompt upgrading. This study analyzes the 434 million unit world major appliance industry, with forecasts for 2013 and 2018 by product, world region and for 25 countries. It also evaluates company market share and profiles industry players.

#2588 ..... December 2009 ..... \$6100

**HVAC Equipment**

US HVAC equipment demand will rise 4.5% annually through 2013, driven by a recovery in residential construction and incentives to buy more energy-efficient systems. Heat pumps will be the fastest growing type of heating equipment. Unitary air conditioners account for the largest share of the cooling equipment segment. This study analyzes the \$13.7 billion US HVAC equipment industry, with forecasts for 2013 and 2018 by fuel type, equipment type and market. It also evaluates market share and profiles industry players.

#2553 ..... October 2009 ..... \$4800

**World Fluorochemicals**

Global demand for fluorochemicals will rise 2.7% yearly by volume through 2013. The Asia/Pacific region will remain the largest market while the Africa/Mideast region grows the fastest. Inorganic and specialty fluorochemicals will continue as the top segment while fluoropolymers lead gains. This study analyzes the \$12.7 billion world fluorochemical industry, with forecasts for 2013 and 2018 by product, market, world region and for 15 countries. It also evaluates market share and profiles industry players.

#2528 ..... August 2009 ..... \$5800

**About The Freedonia Group**

The Freedonia Group, Inc., is a leading international industry market research company that provides its clients with information and analysis needed to make informed strategic decisions for their businesses. Studies help clients identify business opportunities, develop strategies, make investment decisions and evaluate opportunities and threats. Freedonia research is designed to deliver unbiased views and reliable outlooks to assist clients in making the right decisions. Freedonia capitalizes on the resources of its proprietary in-house research team of experienced economists, professional analysts, industry researchers and editorial groups. Freedonia covers a diverse group of industries throughout the United States, the emerging China market, and other world markets. Industries analyzed by Freedonia include:

- Chemicals • Plastics • Life Sciences • Packaging • Building Materials • Security & Electronics • Industrial Components & Equipment • Automotive & Transportation Equipment • Household Goods • Energy/Power Equipment

[Click here to learn more about Freedonia](#)

**Freedonia Custom Research**

Freedonia Custom Research delivers the same high quality, thorough and unbiased assessment of an industry or market as an industry study. Since the research initiative is based upon a company's specific needs, companies harness Freedonia's research capabilities and resources to answer unique questions. When you leverage the results of a Freedonia Custom Research engagement, you are able to obtain important answers to specific questions and issues associated with: mergers and acquisitions, new product launches/development, geographic expansion, entry into new markets, strategic business planning, and investment and funding decisions.

Freedonia Custom Research is ideal for companies seeking to make a strategic difference in the status quo and focus on future business growth. Working side by side with clients, Freedonia's team is able to define a research project that is custom-tailored to answer specific questions and provide the basis from which a company can make informed business decisions.

[Click here to learn more about Custom Research](#)



[Click here for complete title list](#)

[Click here to visit freedoniagroup.com](http://www.freedoniagroup.com)