INDUSTRY MARKET RESEARCH FOR BUSINESS LEADERS, STRATEGISTS, DECISION MAKERS

Sterile Medical Packaging

US Industry Study with Forecasts for **2012 & 2017**

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Sterile Medical Packaging

US Industry Study with Forecasts for ***2012 & 2017***

The fastest gains are expected in pharmaceutical and biological applications, reflecting the commercialization of biotechnology-based therapies delivered via injection or inhalation.

US demand to climb 6.1% annually through 2012

Demand for sterile medical packaging is projected to climb 6.1 percent per annum to $6.5 billion in 2012, representing nearly 37 billion units. Growth will be fueled by the shift to an older demographic, which will lead to a rising incidence of acute and chronic conditions and an increasing volume of patient activity. Upward trends in patient activity will broaden the overall use of sterile medical products, impacting favorably on demand for related packaging. In addition, the sterile medical packaging market will benefit from ongoing product development activity in pharmaceuticals and medical devices and the upgrading of health care infection prevention standards. While unit gains will be similar to the 2002-2007 period, more moderate value demand growth will reflect slower price increases.

Pharmaceutical, biological applications to lead gains

The fastest gains are expected in pharmaceutical and biological applications, reflecting the commercialization of sophisticated biotechnology-based therapies delivered via injection or inhalation. This factor will support above-average gains for prefillable syringes, vials and ampuls, prefillable inhalers and closures. These products are widely used with biotechnology-based drugs, which have high stability and sterility requirements. Demand will also be aided by widening preferences for safer, unit-dose delivery systems.

US Sterile Medical Packaging Demand, 2007
($4.8 billion)

Demand in other sterile medical packaging product segments will increase more slowly, reflecting decelerating growth in surgical procedures and advances in minimally invasive surgical techniques. Still, the growing role of specialized outpatient facilities in providing health care services will strengthen opportunities for sterile medical products and related packaging such as thermoformed trays, pouches, bottles, sterilization wrap, blister and clamshell packs, IV and blood containers, and bags. Fastest growth among these products is anticipated for trays, pouches and blister and clamshell packs.

Despite competition from less costly pouches and bags, advances for trays and blister and clamshell packs will be supported by higher protective properties, which reduce the risk of damage during transport and storage. Trays will further benefit from advantages of infection prevention, labor saving, cost accounting and storage convenience. Multiple compartment trays will gain ground as they virtually eliminate the risk of staff errors in the collection and organization of products required for various procedures. Gains for pouches will reflect improved strength, puncture resistance and barrier properties, which will lead to expanding applications in the unit-of-use packaging of small- to medium-sized supplies and devices.

Sterile Medical Packaging

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Sample Text, Table & Chart

MATERIALS

High Density Polyethylene

Demand for high density polyethylenes (HDPE) in steri packaging applications is fo annua million pounds, valued at $ E's ad a sterile packaging material chemi tance, excellent drug compa eranc rigidity, effective moisture with oxide and radiation steriliza value grades of the resin, including ated hi lar weight compounds, will provide the best growth opportun on enhanced moisture, puncture, tear and chemical resistance able growth in sterile medical packaging is also anticipated f TYVEK, a medical nonwoven fiber produced from HDPE. less costly grades will boost demand for TYVEK in a numbe tions, including tray, pouch and bag lidstock.

SAMPLE TEXT

Slightly below-average growth for HDPE in sterile med ing will be based on increasing competition from polypropyl density polyethylene (LDPE), especially in tray, pouch and b tions. Furthermore, HDPE cannot meet the clarity requireme high visibility drug containers, and therefore is not expected to penetrate high value-added applications such as IV containers and prefillable syringes. The leading sterile packaging applications for HDPE are sterilization wrap, pouches and trays, which accounted for a combined 79 percent of poundage in 2007. Other uses encompass bags, vials and ampuls, bottles and closures.

HDPE's good barrier, product compatibility and strength properties make it well suited for the production of sterile pouches and bags. Moreover, HDPE sheet is used widely in the fabrication of thermoformed trays based on its strong impact and chemical resistance, biocompatibility, broad temperature tolerance, good barrier properties, rigidity and

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TABLE III-4

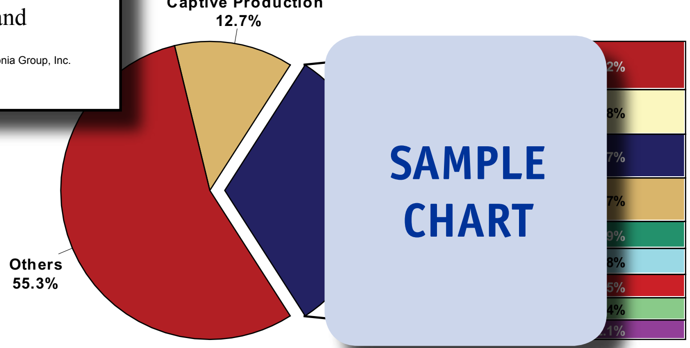
VIAL & AMPUL DEMAND

Item	1997	2002	2007	2012	2017
Patient Episodes (million)*					
vials & ampuls/episode					
Vials & Ampuls (mil units)					
Vials:					
Glass					
Plastic					
Ampuls:					
Glass					
Plastic					
cents/unit					
Vials & Ampuls (mil $)					
Vials:					
Glass					
Plastic					
Ampuls:					
Glass					
Plastic					
% vials & ampuls					
Sterile Medical Packaging (mil $)					8720

SAMPLE TABLE

CHART VI-1

LE MEDICAL PACKAGING MAREKT SHARE, 2007
($4.8 billion)



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Sterile Medical Packaging

US Industry Study with Forecasts for ***2012 & 2017***

Sample Profile, Table & Forecast

TABLE V-2

PHARMACEUTICALS & BIOLOGICALS: STERILE MEDICAL PACKAGING DEMAND (million dollars)

Item	1997	2002	2007	2012	2017
Pharma & Biological Shpts (bil $)	1				0.0
$ sterile packaging/000$ shpts					0.1
Pharm & Biologicals Sterile Pkg					80
Prefillable Syringes					50
Vials & Ampuls					47
Prefillable Inhalers					70
Closures					00
Bottles					25
IV & Blood Containers					00
Pouches					40
Thermoformed Trays					48
% pharmaceuticals & biologicals					7.4
Sterile Packaging Demand	2				8720

SAMPLE TABLE

COMPANY PROFILES

Oliver Products Company
445 Sixth Street Northwest
Grand Rapids, MI 49504
616-456-7711
http://www.o

Annual Sales
Employment:

Key Products

SAMPLE PROFILE

Oliver P ... ating through three business ... ery Equipment, and Industrial and Food Packaging. The privately held company serves over 3,000 customers in over 40 countries. In June 2007, Oliver Products was acquired by Mason Wells Incorporated (Milwaukee, Wisconsin), a private equity firm.

The Company is active in the US sterile medical packaging industry through the Medical Device Packaging unit, which manufactures lidding, pouches and rollstock for use in packaging medical devices. Oliver Products uses its proprietary XHALE adhesives with DOT-COAT sure-seal technology to seal the Company's sterile medical packaging products. XHALE hot melt adhesives are designed to provide accelerated ethylene oxide (EtO) sterilization cycles; good anchorage; and resistance to humidity, condensation and ultraviolet light.

Lidding from Oliver Products is manufactured using OVANTEX sterile-grade material, paper, film and TYVEK (DuPont) for packaging such medical products as surgical trays, orthopedics and implantables. This lidding can be used in EtO, autoclave and radiation sterilization

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"Parenteral vials and ampuls will remain the standard containers for injectable pharmaceuticals packaged in volumes of 50 milliliters or less. Demand for these containers is projected to rise 7.5 percent annually to over $895 million in 2012. The increasing development of bioengineered medicines will impact favorably on gains. Moderating gains will be competition from prefillable syringes and premixed IV systems, along with advances in oral and inhalation drug delivery systems. Sterile plastic and glass bottle demand is expected to ..."
--Section V, pg. 167

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Other Studies

Pharmaceutical Packaging

US demand for pharmaceutical packaging will grow 5.5% annually through 2012. Strong growth is forecast for value-added types, especially parenteral vials and flip-top closures, plastic dispensing bottles and closures, prefillable inhalers and syringes, parenteral stoppers, track and trace and authentication labels, and unit dose pouches. This study analyzes the $12.2 billion US drug packaging industry, with forecasts for 2012 and 2017 by material, product and market. It also evaluates market share and profiles industry players.

#2341 .... 05/2008..................... $4700

Cosmetic & Toiletry Containers

US cosmetic and toiletry container demand will reach 25.5 billion units in 2012 based on accelerating cosmetic and toiletry shipments. Plastic will be the fastest growing material while shaped aerosol cans and upscale paper cartons enjoy niche prospects. Skin care and liquid soap will be the fastest growing markets. This study analyzes the $3.6 billion US cosmetic and toiletry container industry, with forecasts for 2012 and 2017 by material and market. It also details market share and profiles major players.

#2322 .... 04/2008..................... $4600

Drug Delivery Systems

US demand for drug delivery systems will grow 10% annually through 2012. Oral types will remain the largest drug delivery category while parenteral, inhalation and implantable systems grow the fastest. Parenteral formulations will eventually surpass oral dosages as the largest product group. This study analyzes the $80.2 billion US drug delivery system industry, with forecasts for 2012 and 2017 by material, type and application. It also evaluates company market share and profiles leading industry players.

#2294 .... 03/2008..................... $4500

Active & Intelligent Packaging

US demand for active and intelligent packaging will grow 13% yearly through 2011. Intelligent packaging will grow the fastest, driven by the emergence of lower cost time-temperature indicator (TTI) labels. Active packaging will be paced by gas scavengers. Pharmaceuticals, beverages and food will offer the best market prospects. This study analyzes the US active and intelligent packaging industry, with forecasts for 2011 and 2016 by product and market. It also details market share and profiles major players.

#2236 .... 08/2007..................... $4400

World Pharmaceutical Packaging

World pharmaceutical packaging demand will grow 5.9% annually through 2011. Western Europe, the US and Japan will continue to account for most demand while China, India and Brazil lead gains. Prefillable inhalers and syringes will grow the fastest while plastic bottles will remain dominant. This study analyzes the $25.8 billion world drug packaging industry, with forecasts for 2011 and 2016 by material, product, world region and for 30 countries. It also details market share and profiles major players.

#2213 .... 07/2007..................... $5800

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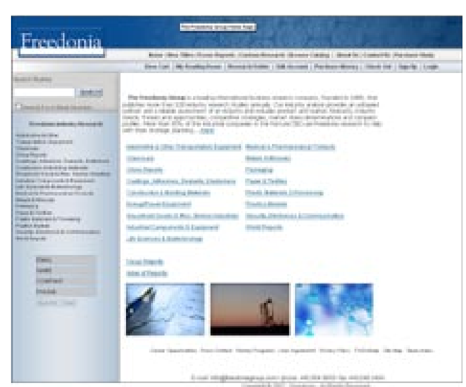

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