

# **Pre-Sterilized / Ready to Use Pharmaceutical Primary Packaging Market: Distribution by Type of Container (Sterile Cartridges, Sterile Syringes and Sterile Vials), Type of Closure (Caps, Plungers, Seals, Stoppers, Tip Caps / Needle Shields), Material of Fabrication (Aluminum, Glass, Plastic and Rubber) and Key Geographical Regions (North America, Europe, Asia, Latin America, Middle East and North Africa and Rest of the World): Industry Trends and Global Forecasts, 2023 - 2035**

<https://marketpublishers.com/r/PCDF532386ACEN.html>

Date: August 2023

Pages: 323

Price: US\$ 4,799.00 (Single User License)

ID: PCDF532386ACEN

## **Abstracts**

The global pre-sterilized / ready to use pharmaceutical primary packaging market is expected to reach USD 9.18 billion in 2023 anticipated to grow at a CAGR of 8.74% during the forecast period 2023-2035.

The pharmaceutical industry places paramount emphasis on ensuring the integrity and safety of drugs and vaccines. Within this realm, the primary packaging of these products assumes a crucial role in safeguarding their quality and shielding them from potential contaminants. Therefore, the process of sterilization stands as a pivotal step in pharmaceutical manufacturing, serving to preserve product safety and maintain stringent quality standards. This need has driven the emergence and adoption of pre-sterilized or ready-to-use containers and closures in pharmaceutical packaging. Ready-to-use vials, commonly known as RTU vials, alleviate the necessity for in-house sterilization processes, thereby reducing contamination risks and significantly expediting production timelines. Notably, the escalating demand for secure drug delivery systems

has been a major driver behind the growth of the global pharmaceutical packaging market. Consequently, ready-to-use components such as sterile vials and syringes have experienced a surge in popularity owing to their convenience and consistent performance across diverse applications.

Technological advancements have played a pivotal role in fostering the creation of innovative packaging solutions that guarantee product integrity and enhance patient safety. Sterile primary containers constitute a burgeoning segment within the pharmaceutical packaging market. Leading companies such as Thermo Fisher Scientific and Corning Incorporated have been at the forefront of developing various groundbreaking primary packaging solutions, including pre-sterilized or ready-to-use containers and closures. These solutions are meticulously crafted to ensure product quality, comply with regulatory standards, and streamline manufacturing processes. The escalating adoption of sterile vials and other primary containers within a sterile environment is poised to make a substantial contribution to the robust growth of the pre-sterilized or ready-to-use pharmaceutical packaging market during the forecasted period.

## Report Coverage

An executive summary of the key insights presented in our report. It offers a high-level view on the current state of the ready-to-use primary packaging systems market and its likely evolution in the short-midterm and long term.

An overview of conventional pharmaceutical packaging and the limitations associated with the currently used container-closure systems. Elaborated emphasis on innovation in the pharmaceutical packaging industry and the consequent growth of flexible fill / finish solutions. It also presents information on pre-sterilized / ready-to-use primary packaging components. Further, it features an elaborate discussion on the various techniques used for sterilization of different primary packaging materials.

A comprehensive review of the current market landscape of ready-to-use primary packaging components, featuring information on the (A) Containers: Type of container, type of fabrication material, sterilization technique used, volume of container and compatible drug class; (B) Closures: Type of closure, type of fabrication material, type of compatible container, sterilization technique used and compatible drug class and (C) Container-Closure System: Type of container, type of fabrication material for container, type of closure, type of

fabrication material for closure, sterilization technique used, volume of container and compatible drug class (biologics and small molecules).

A detailed competitiveness analysis of ready-to-use primary packaging system manufacturers based on various relevant parameters, such as supplier power (based on the experience / expertise of the manufacturer) and key product specifications (type of container, type of fabrication material used, type of closure, sterilization technique used and compatible drug class).

Detailed profiles of the prominent companies that develop ready-to-use primary packaging systems. Each company profile features a brief overview of the company, details related to its financials (if available), product portfolio, recent developments and an informed future outlook.

An analysis of the partnerships that have been inked by stakeholders engaged in this domain, in the period 2015 - 2020. It includes a brief description of various partnership models. In addition, it includes a detailed analysis of partnerships based on year of partnership, type of partnership, location of partners and other relevant parameters.

An overview of the current and future demand for ready-to-use primary packaging components, including vials, syringes, cartridges and closures, in the contemporary market.

The emerging trends in the overall pharmaceutical manufacturing and fill-finish industry. Specifically, it presents the growing demand of personalized therapies, shift towards more flexible packaging, development of modular facilities, upgrading packaging components to enhance drug product safety, increase in partnership activity, and growing adoption of smart packaging solutions.

A detailed case study on the role of robots in the pharmaceutical manufacturing and fill / finish process, highlighting its benefits and capabilities. It provides a list of the various types of pharmaceutical robots, along with details on their respective manufacturer and applications. Additionally, the chapter features profiles of players that offer robotic equipment for pharmaceutical manufacturing and fill / finish operations, along with information on the key specifications of their respective machinery.

A comprehensive market forecast analysis, highlighting the future potential of

the market till 2030, based on multiple parameters, such as current demand for respective packaging components, likely adoption rates and the estimated price of components. It includes future sales projections of various closures of key packaging containers. We have segregated the current and upcoming opportunity based on type of primary packaging system, type of fabrication material used and key geographies.

### Key Market Companies

APG Pharma

Aptar

Daikyo Seiko

Datwyler

DWK Life Sciences

Ningbo Zhengli Pharmaceutical Packaging

SCHOTT

Stevanto

West Pharmaceutical Service

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## **26. APPENDIX 2: LIST OF COMPANIES AND ORGANIZATION**



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