

Lyophilization Services Market for Biopharmaceuticals: Distribution by Type of Biologic Lyophilized (Antibodies, Cell and Gene Therapies, Vaccines and Other Biologics), Type of Primary Packaging System (Vials, Syringes, Cartridges, Ampoules and Others) and Key Geographies (North America, Europe, Asia Pacific, Latin America, Middle East and North Africa, and Rest of the World) – Industry Trends and Global Forecasts, 2022-2035

<https://marketpublishers.com/r/L40889AAD44EEN.html>

Date: April 2022

Pages: 225

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

ID: L40889AAD44EEN

Abstracts

The lyophilization services market is expected to reach USD 2.2 billion in 2022 anticipated to grow at a CAGR of 6.8% during the forecast period 2022-2035.

Over the past decade, there has been a consistent upward trend in the approvals of various biologics, encompassing monoclonal antibodies, cell therapies, recombinant proteins, vaccines, and gene therapies. This sector has emerged as one of the fastest-growing segments within the pharmaceutical industry, attributed to the distinct advantages these therapies offer, including high efficacy, targeted action, and favorable safety profiles. Forecasts suggest that the biopharmaceutical market will sustain its expansion in the forthcoming years.

However, biologic drugs present unique challenges. They exhibit lesser stability in comparison to small molecules and are more susceptible to physical and chemical degradation. To enhance their shelf life and ensure stability, the adoption of lyophilization, commonly known as freeze-drying, has become prevalent. This technique facilitates the production of stable, dry biopharmaceutical formulations. Approximately

half of the presently approved biopharmaceuticals are injectables, and around one-third of these are suitable candidates for lyophilization.

Establishing in-house lyophilization capabilities is a costly and time-intensive endeavor, requiring specialized equipment and expertise. Consequently, a growing number of biologic developers are opting to outsource their lyophilization operations to specialized contract manufacturing organizations (CMOs). This approach allows them to leverage the capabilities of these organizations while also realizing cost-saving opportunities. Currently, more than 105 contract manufacturers claim to possess the requisite expertise to provide lyophilization services for biotherapeutics. Furthermore, these service providers are forging strategic alliances to bolster their position in the industry and augment their capabilities to meet the increasing demand for biologics. The preference for outsourcing, combined with the continual expansion of the biological therapeutics pipeline and the steady increase in drug approvals, indicates that the lyophilization services market for biopharmaceuticals is poised for consistent growth in the forecasted period.

Report Coverage

Overview of lyophilization for biopharmaceuticals, detailing the process, historical evolution, advantages, and disadvantages. It highlights the steps, lyophilizer components, packaging systems, and cycle development.

Market landscape, analyzing 105 companies providing lyophilization services. It focuses on parameters like establishment year, company size, location, operation scale, certification, types of biologics, lyophilization process, packaging systems, and additional services.

Service providers in North America, Europe, Asia Pacific, and RoW based on employee count, facilities, biologics lyophilized, process, and packaging systems. It plots top stakeholders on a capability's spider web.

Detailed profiles of key companies providing lyophilization services in North America, Europe, and Asia Pacific. Each profile covers service offerings, facilities, recent developments, and future outlook.

Details on collaborations in the lyophilization domain from 2018 to 2021, focusing on partnership types, active players, and regional distribution.

Analyzes recent expansions by service providers, considering expansion types, company size, headquarters, locations, and active players.

Details on insights from a survey conducted among senior stakeholders in lyophilization services, focusing on biologics, packaging, scale, capabilities, and market potential.

Detailed market forecast till 2035 based on biologic types, packaging systems, and key geographies, using a top-down approach supported by primary research data.

Key Market Companies

Baxter BioPharma Solutions

Curia

Emergent BioSolutions

LSNE Contract Manufacturing

Lyophilization Technology

CordenPharma

Coriolis Pharma

Northway Biotech

ProJect Pharmaceuticals

Vetter Pharma

BioZed Engineering

CinnaGen

MabPlex

Samsung Biologics

WuXi Biologics

Contents

1. PREFACE

- 1.1. Scope of the Report
- 1.2. Research Methodology
- 1.3. Key Questions Answered
- 1.4. Chapter Outlines

2. EXECUTIVE SUMMARY

3. INTRODUCTION

- 3.1. Chapter Overview
- 3.2. Overview of Lyophilization
 - 3.2.1. Historical Evolution
 - 3.2.2. Underlying Principles
 - 3.2.3. Advantages and Disadvantages
- 3.3. Lyophilization of Biopharmaceuticals
 - 3.3.1. Need for Lyophilization of Biopharmaceuticals
 - 3.3.2. Lyophilization Process
 - 3.3.2.1. Formulation and Filling
 - 3.3.2.2. Freezing
 - 3.3.2.3. Primary Drying
 - 3.3.2.4. Secondary Drying
- 3.4. Lyophilizer and its Key Components
- 3.5. Primary Packaging Systems Used for Lyophilization of Biopharmaceuticals
- 3.6. Lyophilization Cycle Development and Optimization
- 3.7. Concluding Remarks

4. MARKET LANDSCAPE

- 4.1. Chapter Overview
- 4.2. Lyophilization Service Providers for Biopharmaceuticals: Overall Market Landscape
 - 4.2.1. Analysis by Year of Establishment
 - 4.2.2. Analysis by Company Size
 - 4.2.3. Analysis by Location of Headquarters
 - 4.2.4. Analysis by Scale of Operation
 - 4.2.5. Analysis by Regulatory Certification / Accreditation

- 4.2.6. Analysis by Type of Biologic Lyophilized
- 4.2.7. Analysis by Process of Lyophilization
- 4.2.8. Analysis by Type of Primary Packaging System
- 4.2.9. Analysis by Additional Services Offered

5. BENCHMARK ANALYSIS

- 5.1. Chapter Overview
- 5.2. Methodology
- 5.3. Benchmark Analysis: Peer Groups
 - 5.3.1. Benchmark Analysis: North America (Peer Group I)
 - 5.3.2. Benchmark Analysis: North America (Peer Group II)
 - 5.3.3. Benchmark Analysis: North America (Peer Group III)
 - 5.3.4. Benchmark Analysis: Europe (Peer Group IV)
 - 5.3.5. Benchmark Analysis: Europe (Peer Group V)
 - 5.3.6. Benchmark Analysis: Europe (Peer Group VI)
 - 5.3.7. Benchmark Analysis: Asia Pacific and Rest of the World (Peer Group VII)
 - 5.3.8. Benchmark Analysis: Asia Pacific and Rest of the World (Peer Group VIII)

6. COMPANY PROFILES: LYOPHILIZATION SERVICE PROVIDERS FOR BIOPHARMACEUTICALS IN NORTH AMERICA

- 6.1. Chapter Overview
- 6.2. Baxter BioPharma Solutions
 - 6.2.1. Company Overview
 - 6.2.2. Lyophilization Service Offerings for Biopharmaceuticals
 - 6.2.3. Dedicated Biopharmaceutical Lyophilization Facilities
 - 6.2.4. Recent Developments and Future Outlook
- 6.3. Curia
 - 6.3.1. Company Overview
 - 6.3.2. Lyophilization Service Offerings for Biopharmaceuticals
 - 6.3.3. Dedicated Biopharmaceutical Lyophilization Facilities
 - 6.3.4. Recent Developments and Future Outlook
- 6.4. Emergent BioSolutions
 - 6.4.1. Company Overview
 - 6.4.2. Lyophilization Service Offerings for Biopharmaceuticals
 - 6.4.3. Dedicated Biopharmaceutical Lyophilization Facilities
 - 6.4.4. Recent Developments and Future Outlook
- 6.5. LSNE Contract Manufacturing

- 6.5.1. Company Overview
- 6.5.2. Lyophilization Service Offerings for Biopharmaceuticals
- 6.5.3. Dedicated Biopharmaceutical Lyophilization Facilities
- 6.5.4. Recent Developments and Future Outlook
- 6.6. Lyophilization Technology
 - 6.6.1. Company Overview
 - 6.6.2. Lyophilization Service Offerings for Biopharmaceuticals
 - 6.6.3. Dedicated Biopharmaceutical Lyophilization Facilities
 - 6.6.4. Recent Developments and Future Outlook

7. COMPANY PROFILES: LYOPHILIZATION SERVICE PROVIDERS FOR BIOPHARMACEUTICALS IN EUROPE

- 7.1. Chapter Overview
- 7.2. CordenPharma
 - 7.2.1. Company Overview
 - 7.2.2. Lyophilization Service Offerings for Biopharmaceuticals
 - 7.2.3. Dedicated Biopharmaceutical Lyophilization Facilities
 - 7.2.4. Recent Developments and Future Outlook
- 7.3. Coriolis Pharma
 - 7.3.1. Company Overview
 - 7.3.2. Lyophilization Service Offerings for Biopharmaceuticals
 - 7.3.3. Dedicated Biopharmaceutical Lyophilization Facilities
 - 7.3.4. Recent Developments and Future Outlook
- 7.4. Northway Biotech
 - 7.4.1. Company Overview
 - 7.4.2. Lyophilization Service Offerings for Biopharmaceuticals
 - 7.4.3. Dedicated Biopharmaceutical Lyophilization Facilities
 - 7.4.4. Recent Developments and Future Outlook
- 7.5. ProJect Pharmaceuticals
 - 7.5.1. Company Overview
 - 7.5.2. Lyophilization Service Offerings for Biopharmaceuticals
 - 7.5.3. Dedicated Biopharmaceutical Lyophilization Facilities
 - 7.5.4. Recent Developments and Future Outlook
- 7.6. Vetter Pharma
 - 7.6.1. Company Overview
 - 7.6.2. Lyophilization Service Offerings for Biopharmaceuticals
 - 7.6.3. Dedicated Biopharmaceutical Lyophilization Facilities
 - 7.6.4. Recent Developments and Future Outlook

8. COMPANY PROFILES: LYOPHILIZATION SERVICE PROVIDERS FOR BIOPHARMACEUTICALS IN ASIA PACIFIC

8.1. Chapter Overview

8.2. BioZed Engineering

8.2.1. Company Overview

8.2.2. Lyophilization Service Offerings for Biopharmaceuticals

8.2.3. Dedicated Biopharmaceutical Lyophilization Facilities

8.2.4. Recent Developments and Future Outlook

8.3. CinnaGen

8.3.1. Company Overview

8.3.2. Lyophilization Service Offerings for Biopharmaceuticals

8.3.3. Dedicated Biopharmaceutical Lyophilization Facilities

8.3.4. Recent Developments and Future Outlook

8.4. MabPlex

8.4.1. Company Overview

8.4.2. Lyophilization Service Offerings for Biopharmaceuticals

8.4.3. Dedicated Biopharmaceutical Lyophilization Facilities

8.4.4. Recent Developments and Future Outlook

8.5. Samsung Biologics

8.5.1. Company Overview

8.5.2. Lyophilization Service Offerings for Biopharmaceuticals

8.5.3. Dedicated Biopharmaceutical Lyophilization Facilities

8.5.4. Recent Developments and Future Outlook

8.6. WuXi Biologics

8.6.1. Company Overview

8.6.2. Lyophilization Service Offerings for Biopharmaceuticals

8.6.3. Dedicated Biopharmaceutical Lyophilization Facilities

8.6.4. Recent Developments and Future Outlook

9. PARTNERSHIPS AND COLLABORATIONS

9.1. Chapter Overview

9.2. Partnership Models

9.3. Lyophilization Services for Biopharmaceuticals: List of Partnerships and Collaborations

9.3.1. Analysis by Year of Partnership

9.3.2. Analysis by Type of Partnership

- 9.3.3. Analysis by Year and Type of Partnership
- 9.3.4. Most Active Players: Analysis by Number of Partnerships
- 9.3.5. Analysis by Geography
 - 9.3.5.1. Intercontinental and Intracontinental Deals
 - 9.3.5.2. International and Local Deals

10. RECENT EXPANSIONS

- 10.1. Chapter Overview
- 10.2. Lyophilization Services Market for Biopharmaceuticals: List of Recent Expansions
 - 10.2.1. Analysis by Year of Expansion
 - 10.2.2. Analysis by Type of Expansion
 - 10.2.3. Analysis by Year and Type of Expansion
 - 10.2.4. Analysis by Company Size and Location of Headquarters
 - 10.2.5. Analysis by Location of Expanded Facility
 - 10.2.6. Active Players: Analysis by Number of Recent Expansions
 - 10.2.7. Analysis by Geography

11. SURVEY ANALYSIS

- 11.1. Chapter Overview
- 11.2. Lyophilization Services Market for Biopharmaceuticals: List of Participating Companies
 - 11.2.1. Analysis by Seniority Level of Respondents
 - 11.2.2. Analysis by Type of Biologic Lyophilized
 - 11.2.3. Analysis by Type of Primary Packaging System
 - 11.2.4. Analysis by Scale of Operation
 - 11.2.5. Analysis by Additional Services Offered
 - 11.2.6. Analysis by Location of Lyophilization Facility
 - 11.2.7. Analysis by Share of Lyophilization Operations Outsourced
 - 11.2.8. Analysis by Likely Market Size
 - 11.2.9. Analysis of Likely Market Share by Type of Biologic Lyophilized
 - 11.2.10. Analysis of Likely Market Share by Geography

12. CASE STUDY I: LYOPHILIZATION CYCLE DEVELOPMENT AND OPTIMIZATION

- 12.1. Chapter Overview
- 12.2. Lyophilization Cycle Development

- 12.3. Lyophilization Cycle Optimization
- 12.4. Lyophilization Cycle Development and Optimization: List of Service Providers
 - 12.4.1. Analysis by Company Size
 - 12.4.2. Analysis by Location of Headquarters
 - 12.4.3. Analysis by Type of Service Offered
 - 12.4.4 Lyophilization Cycle Development and Optimization Service Providers: Company Snapshots

13. CASE STUDY II: ALTERNATIVE APPROACHES TO LYOPHILIZATION

- 13.1. Chapter Overview
- 13.2. Alternative Approaches to Lyophilization
 - 13.2.1. Spray Drying
 - 13.2.1.1. Spray Drying Process
 - 13.2.1.2. Applications of Spray Drying
 - 13.2.1.3. Spray Drying of Biopharmaceuticals
 - 13.2.1.4. Spray Drying Service Providers for Biopharmaceuticals
 - 13.2.1.5. Comparison of Lyophilization and Spray Drying
 - 13.2.2. Spray Freeze Drying
 - 13.2.3. Atmospheric Spray Freeze Drying
 - 13.2.4. Vacuum Foam Drying

14. MARKET FORECAST AND OPPORTUNITY ANALYSIS

- 14.1. Chapter Overview
- 14.2. Forecast Methodology and Key Assumptions
- 14.3. Global Lyophilization Services Market for Biopharmaceuticals, 2022-2035
- 14.4. Lyophilization Services Market for Biopharmaceuticals: Distribution by Type of Biologic Lyophilized, 2022 and 2035
 - 14.4.1. Lyophilization Services Market for Antibodies, 2022-2035
 - 14.4.2. Lyophilization Services Market for Cell and Gene Therapies, 2022-2035
 - 14.4.3. Lyophilization Services Market for Vaccines, 2022-2035
 - 14.4.4. Lyophilization Services Market for Other Biologics, 2022-2035
- 14.5. Lyophilization Services Market for Biopharmaceuticals: Distribution by Type of Primary Packaging System, 2022 and 2035
 - 14.5.1. Lyophilization Services Market for Biopharmaceuticals for Vials, 2022-2035
 - 14.5.2. Lyophilization Services Market for Biopharmaceuticals for Syringes, 2022-2035
 - 14.5.3. Lyophilization Services Market for Biopharmaceuticals for Cartridges, 2022-2035

14.5.4. Lyophilization Services Market for Biopharmaceuticals for Ampoules, 2022-2035

14.5.5. Lyophilization Services Market for Biopharmaceuticals for Other Primary Packaging Systems, 2022-2035

14.6. Lyophilization Services Market for Biopharmaceuticals: Distribution by Geography, 2022 and 2035

14.6.1. Lyophilization Services Market for Biopharmaceuticals in North America, 2022-2035

14.6.2. Lyophilization Services Market for Biopharmaceuticals in Europe, 2022-2035

14.6.3. Lyophilization Services Market for Biopharmaceuticals in Asia Pacific, 2022-2035

14.6.4. Lyophilization Services Market for Biopharmaceuticals in Middle East and North Africa, 2022-2035

14.6.5. Lyophilization Services Market for Biopharmaceuticals in Latin America, 2022-2035

14.6.6. Lyophilization Services Market for Biopharmaceuticals in Rest of the World, 2022-2035

15. CONCLUDING REMARKS

16. EXECUTIVE INSIGHTS

16.1. Chapter Overview

16.2. Pharmaceutical International

16.2.1. Company Snapshot

16.2.2. Interview Transcript: Brian Sasaki, Director of Business Development and Thomas Ingallinera, Vice President of Technical Support

16.3. Curia

16.3.1. Company Snapshot

16.3.2. Interview Transcript: Doreen Coull, Regional Sales Director

16.4. Emergent BioSolutions

16.4.1. Company Snapshot

16.4.2. Interview Transcript: Patrick DePalma, Former Director, CMO Business Development, BioDefense Division

16.5. Liof Pharma

16.5.1. Company Snapshot

16.5.2. Interview Transcript: Rocio Gonzalez Rodriguez, Head of CDMO Project Management

16.6. Vibalogics

- 16.6.1. Company Snapshot
- 16.6.2. Interview Transcript: John Shaw, Former Head of Business Development and Marketing
- 16.7. Samsung Biologics
 - 16.7.1. Company Snapshot
 - 16.7.2. Interview Transcript: Sophia Kim, Commercial DP (Depository Participant)
Sales / Group Leader
- 16.8. Bioserv
 - 16.8.1. Company Snapshot
 - 16.8.2. Interview Transcript: Marianna Tcherpakov, Business Development Manager
- 16.9. Symbiosis Pharmaceutical Services
 - 16.9.1. Company Snapshot
 - 16.9.2. Interview Transcript: Adam Inche, Marketing Manager
- 16.10. Patheon
 - 16.10.1. Company Snapshot
 - 16.10.2. Interview Transcript: Adam Viverette, Manager of Lyophilization Operations
- 16.11. Baxter BioPharma Solutions
 - 16.11.1. Company Snapshot
 - 16.11.2. Interview Transcript: Steven Nail, Principal Scientist

17. APPENDIX 1: TABULATED DATA

18. APPENDIX 2: LIST OF COMPANIES AND ORGANIZATIONS

I would like to order

Product name: Lyophilization Services Market for Biopharmaceuticals: Distribution by Type of Biologic Lyophilized (Antibodies, Cell and Gene Therapies, Vaccines and Other Biologics), Type of Primary Packaging System (Vials, Syringes, Cartridges, Ampoules and Others) and Key Geographies (North America, Europe, Asia Pacific, Latin America, Middle East and North Africa, and Rest of the World) – Industry Trends and Global Forecasts, 2022-2035

Product link: <https://marketpublishers.com/r/L40889AAD44EEN.html>

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

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/L40889AAD44EEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below
and fax the completed form to +44 20 7900 3970