

Liquid Nitrogen Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

<https://marketpublishers.com/r/L632CB753FE8EN.html>

Date: November 2023

Pages: 147

Price: US\$ 2,499.00 (Single User License)

ID: L632CB753FE8EN

Abstracts

The global liquid nitrogen market size reached US\$ 18.3 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 25.8 Billion by 2028, exhibiting a growth rate (CAGR) of 5.89% during 2022-2028.

Liquid nitrogen (LN) is a dry, condensed, scentless, inert and non-combustible cryogenic liquid used for rapid freezing. It is produced in air separation and liquefaction plants through cryogenic distillation and pressure swing adsorption processes and is usually stored in LN dewars, cryogenic liquid cylinders and cryogenic tanks. LN aids in rapid cooling and temporary shrinking of mechanical gears and components during machine assembly for improved intrusion fits. It is also used for cryosurgeries, cryotherapies and cryopreservation procedures to remove decayed tissues, warts, moles, skin tags and pre-cancerous cells in the body. LN also finds extensive applications for the freezing of food and beverages and creating an aesthetic cloud of vapor or fog over dishes in fine-dine restaurants, cafes and hotels.

Liquid Nitrogen Market Trends:

The increasing demand for cryogenic liquids for metal fabrication and manufacturing of electronics, healthcare, automotive and lighting systems is one of the key factors driving the market growth. LN is widely used as a coolant to prevent additional heat generation during the grinding process resulting in minimal corrosion and high-quality and uniformly sized ice particles. Moreover, the widespread adoption of LN as an organic additive for the development of generics, therapeutic medicines and active pharmaceutical ingredients is providing a thrust to the market growth. In line with this, significant growth in the food and beverage industry is also favoring the market growth. LN is widely used for rapid cooling freezing of bakery products, meat, poultry, fish, prepared meals,

vegetables and fruits while retaining their original color, scent and flavor. Other factors, including rapid industrialization, along with the launch of innovative LN-compatible automobile engines for minimal carbon emissions, are anticipated to drive the market toward growth.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global liquid nitrogen market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on technology, function, storage type and end-user.

Breakup by Technology:

- Cryogenic Distillation
- Pressure Swing Adsorption
- Others

Breakup by Function:

- Coolant
- Refrigerant

Breakup by Storage Type:

- Cylinders and Packaged Gas
- Merchant Liquid/Bulk
- Tonnage
- Others

Breakup by End User:

- Chemicals and Pharmaceuticals
- Food and Beverage
- Healthcare
- Metal Manufacturing and Construction
- Rubber and Plastic
- Others

Breakup by Region:

North America

United States

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Air Liquide S.A., Air Products and Chemicals Inc., AMCS Corporation, Asia Industrial Gases Pte. Ltd., Cryomech Inc., Gulf Cryo, Linde plc, Messer Group GmbH, Statebourne Cryogenics Ltd and Taiyo Nippon Sanso Corporation (Mitsubishi Chemical Holdings Corporation).

Key Questions Answered in This Report:

How has the global liquid nitrogen market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global liquid nitrogen market?

What are the key regional markets?

What is the breakup of the market based on the technology?

What is the breakup of the market based on the function?

What is the breakup of the market based on the storage type?

What is the breakup of the market based on the end user?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global liquid nitrogen market and who are the key players?

What is the degree of competition in the industry?

Contents

1 PREFACE

2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
 - 2.3.1 Primary Sources
 - 2.3.2 Secondary Sources
- 2.4 Market Estimation
 - 2.4.1 Bottom-Up Approach
 - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

3 EXECUTIVE SUMMARY

4 INTRODUCTION

- 4.1 Overview
- 4.2 Key Industry Trends

5 GLOBAL LIQUID NITROGEN MARKET

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

6 MARKET BREAKUP BY TECHNOLOGY

- 6.1 Cryogenic Distillation
 - 6.1.1 Market Trends
 - 6.1.2 Market Forecast
- 6.2 Pressure Swing Adsorption
 - 6.2.1 Market Trends
 - 6.2.2 Market Forecast
- 6.3 Others

- 6.3.1 Market Trends
- 6.3.2 Market Forecast

7 MARKET BREAKUP BY FUNCTION

- 7.1 Coolant
 - 7.1.1 Market Trends
 - 7.1.2 Market Forecast
- 7.2 Refrigerant
 - 7.2.1 Market Trends
 - 7.2.2 Market Forecast

8 MARKET BREAKUP BY STORAGE TYPE

- 8.1 Cylinders and Packaged Gas
 - 8.1.1 Market Trends
 - 8.1.2 Market Forecast
- 8.2 Merchant Liquid/Bulk
 - 8.2.1 Market Trends
 - 8.2.2 Market Forecast
- 8.3 Tonnage
 - 8.3.1 Market Trends
 - 8.3.2 Market Forecast
- 8.4 Others
 - 8.4.1 Market Trends
 - 8.4.2 Market Forecast

9 MARKET BREAKUP BY END USER

- 9.1 Chemicals and Pharmaceuticals
 - 9.1.1 Market Trends
 - 9.1.2 Market Forecast
- 9.2 Food and Beverage
 - 9.2.1 Market Trends
 - 9.2.2 Market Forecast
- 9.3 Healthcare
 - 9.3.1 Market Trends
 - 9.3.2 Market Forecast
- 9.4 Metal Manufacturing and Construction

- 9.4.1 Market Trends
- 9.4.2 Market Forecast
- 9.5 Rubber and Plastic
 - 9.5.1 Market Trends
 - 9.5.2 Market Forecast
- 9.6 Others
 - 9.6.1 Market Trends
 - 9.6.2 Market Forecast

10 MARKET BREAKUP BY REGION

- 10.1 North America
 - 10.1.1 United States
 - 10.1.1.1 Market Trends
 - 10.1.1.2 Market Forecast
 - 10.1.2 Canada
 - 10.1.2.1 Market Trends
 - 10.1.2.2 Market Forecast
- 10.2 Asia-Pacific
 - 10.2.1 China
 - 10.2.1.1 Market Trends
 - 10.2.1.2 Market Forecast
 - 10.2.2 Japan
 - 10.2.2.1 Market Trends
 - 10.2.2.2 Market Forecast
 - 10.2.3 India
 - 10.2.3.1 Market Trends
 - 10.2.3.2 Market Forecast
 - 10.2.4 South Korea
 - 10.2.4.1 Market Trends
 - 10.2.4.2 Market Forecast
 - 10.2.5 Australia
 - 10.2.5.1 Market Trends
 - 10.2.5.2 Market Forecast
 - 10.2.6 Indonesia
 - 10.2.6.1 Market Trends
 - 10.2.6.2 Market Forecast
 - 10.2.7 Others
 - 10.2.7.1 Market Trends

- 10.2.7.2 Market Forecast
- 10.3 Europe
 - 10.3.1 Germany
 - 10.3.1.1 Market Trends
 - 10.3.1.2 Market Forecast
 - 10.3.2 France
 - 10.3.2.1 Market Trends
 - 10.3.2.2 Market Forecast
 - 10.3.3 United Kingdom
 - 10.3.3.1 Market Trends
 - 10.3.3.2 Market Forecast
 - 10.3.4 Italy
 - 10.3.4.1 Market Trends
 - 10.3.4.2 Market Forecast
 - 10.3.5 Spain
 - 10.3.5.1 Market Trends
 - 10.3.5.2 Market Forecast
 - 10.3.6 Russia
 - 10.3.6.1 Market Trends
 - 10.3.6.2 Market Forecast
 - 10.3.7 Others
 - 10.3.7.1 Market Trends
 - 10.3.7.2 Market Forecast
- 10.4 Latin America
 - 10.4.1 Brazil
 - 10.4.1.1 Market Trends
 - 10.4.1.2 Market Forecast
 - 10.4.2 Mexico
 - 10.4.2.1 Market Trends
 - 10.4.2.2 Market Forecast
 - 10.4.3 Others
 - 10.4.3.1 Market Trends
 - 10.4.3.2 Market Forecast
- 10.5 Middle East and Africa
 - 10.5.1 Market Trends
 - 10.5.2 Market Breakup by Country
 - 10.5.3 Market Forecast

11 SWOT ANALYSIS

- 11.1 Overview
- 11.2 Strengths
- 11.3 Weaknesses
- 11.4 Opportunities
- 11.5 Threats

12 VALUE CHAIN ANALYSIS

13 PORTERS FIVE FORCES ANALYSIS

- 13.1 Overview
- 13.2 Bargaining Power of Buyers
- 13.3 Bargaining Power of Suppliers
- 13.4 Degree of Competition
- 13.5 Threat of New Entrants
- 13.6 Threat of Substitutes

14 PRICE ANALYSIS

15 COMPETITIVE LANDSCAPE

- 15.1 Market Structure
- 15.2 Key Players
- 15.3 Profiles of Key Players
 - 15.3.1 Air Liquide S.A.
 - 15.3.1.1 Company Overview
 - 15.3.1.2 Product Portfolio
 - 15.3.1.3 Financials
 - 15.3.1.4 SWOT Analysis
 - 15.3.2 Air Products and Chemicals Inc.
 - 15.3.2.1 Company Overview
 - 15.3.2.2 Product Portfolio
 - 15.3.2.3 Financials
 - 15.3.2.4 SWOT Analysis
 - 15.3.3 AMCS Corporation
 - 15.3.3.1 Company Overview
 - 15.3.3.2 Product Portfolio
 - 15.3.4 Asia Industrial Gases Pte. Ltd.

- 15.3.4.1 Company Overview
- 15.3.4.2 Product Portfolio
- 15.3.5 Cryomech Inc.
 - 15.3.5.1 Company Overview
 - 15.3.5.2 Product Portfolio
- 15.3.6 Gulf Cryo
 - 15.3.6.1 Company Overview
 - 15.3.6.2 Product Portfolio
- 15.3.7 Linde plc
 - 15.3.7.1 Company Overview
 - 15.3.7.2 Product Portfolio
 - 15.3.7.3 Financials
- 15.3.8 Messer Group GmbH
 - 15.3.8.1 Company Overview
 - 15.3.8.2 Product Portfolio
- 15.3.9 Statebourne Cryogenics Ltd
 - 15.3.9.1 Company Overview
 - 15.3.9.2 Product Portfolio
- 15.3.10 Taiyo Nippon Sanso Corporation (Mitsubishi Chemical Holdings Corporation)
 - 15.3.10.1 Company Overview
 - 15.3.10.2 Product Portfolio

List Of Tables

LIST OF TABLES

Table 1: Global: Liquid Nitrogen Market: Key Industry Highlights, 2022 and 2028

Table 2: Global: Liquid Nitrogen Market Forecast: Breakup by Technology (in Million US\$), 2023-2028

Table 3: Global: Liquid Nitrogen Market Forecast: Breakup by Function (in Million US\$), 2023-2028

Table 4: Global: Liquid Nitrogen Market Forecast: Breakup by Storage Type (in Million US\$), 2023-2028

Table 5: Global: Liquid Nitrogen Market Forecast: Breakup by End User (in Million US\$), 2023-2028

Table 6: Global: Liquid Nitrogen Market Forecast: Breakup by Region (in Million US\$), 2023-2028

Table 7: Global: Liquid Nitrogen Market: Competitive Structure

Table 8: Global: Liquid Nitrogen Market: Key Players

List Of Figures

LIST OF FIGURES

Figure 1: Global: Liquid Nitrogen Market: Major Drivers and Challenges

Figure 2: Global: Liquid Nitrogen Market: Sales Value (in Billion US\$), 2017-2022

Figure 3: Global: Liquid Nitrogen Market Forecast: Sales Value (in Billion US\$), 2023-2028

Figure 4: Global: Liquid Nitrogen Market: Breakup by Technology (in %), 2022

Figure 5: Global: Liquid Nitrogen Market: Breakup by Function (in %), 2022

Figure 6: Global: Liquid Nitrogen Market: Breakup by Storage Type (in %), 2022

Figure 7: Global: Liquid Nitrogen Market: Breakup by End User (in %), 2022

Figure 8: Global: Liquid Nitrogen Market: Breakup by Region (in %), 2022

Figure 9: Global: Liquid Nitrogen (Cryogenic Distillation) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 10: Global: Liquid Nitrogen (Cryogenic Distillation) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 11: Global: Liquid Nitrogen (Pressure Swing Adsorption) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 12: Global: Liquid Nitrogen (Pressure Swing Adsorption) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 13: Global: Liquid Nitrogen (Other Technologies) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 14: Global: Liquid Nitrogen (Other Technologies) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 15: Global: Liquid Nitrogen (Coolant) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 16: Global: Liquid Nitrogen (Coolant) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 17: Global: Liquid Nitrogen (Refrigerant) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 18: Global: Liquid Nitrogen (Refrigerant) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 19: Global: Liquid Nitrogen (Cylinders and Packaged Gas) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 20: Global: Liquid Nitrogen (Cylinders and Packaged Gas) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 21: Global: Liquid Nitrogen (Merchant Liquid/Bulk) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 22: Global: Liquid Nitrogen (Merchant Liquid/Bulk) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 23: Global: Liquid Nitrogen (Tonnage) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 24: Global: Liquid Nitrogen (Tonnage) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 25: Global: Liquid Nitrogen (Other Storage Types) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 26: Global: Liquid Nitrogen (Other Storage Types) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 27: Global: Liquid Nitrogen (Chemicals and Pharmaceuticals) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 28: Global: Liquid Nitrogen (Chemicals and Pharmaceuticals) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 29: Global: Liquid Nitrogen (Food and Beverage) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 30: Global: Liquid Nitrogen (Food and Beverage) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 31: Global: Liquid Nitrogen (Healthcare) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 32: Global: Liquid Nitrogen (Healthcare) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 33: Global: Liquid Nitrogen (Metal Manufacturing and Construction) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 34: Global: Liquid Nitrogen (Metal Manufacturing and Construction) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 35: Global: Liquid Nitrogen (Rubber and Plastic) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 36: Global: Liquid Nitrogen (Rubber and Plastic) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 37: Global: Liquid Nitrogen (Other End Users) Market: Sales Value (in Million US\$), 2017 & 2022

Figure 38: Global: Liquid Nitrogen (Other End Users) Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 39: North America: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 40: North America: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 41: United States: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 &

2022

Figure 42: United States: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 43: Canada: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 44: Canada: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 45: Asia-Pacific: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 46: Asia-Pacific: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 47: China: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 48: China: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 49: Japan: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 50: Japan: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 51: India: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 52: India: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 53: South Korea: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 54: South Korea: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 55: Australia: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 56: Australia: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 57: Indonesia: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 58: Indonesia: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 59: Others: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 60: Others: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 61: Europe: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 62: Europe: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 63: Germany: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 64: Germany: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 65: France: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 66: France: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 67: United Kingdom: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 68: United Kingdom: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 69: Italy: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 70: Italy: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 71: Spain: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 72: Spain: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 73: Russia: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 74: Russia: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 75: Others: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 76: Others: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 77: Latin America: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 78: Latin America: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 79: Brazil: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 80: Brazil: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 81: Mexico: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 82: Mexico: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 83: Others: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 84: Others: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 85: Middle East and Africa: Liquid Nitrogen Market: Sales Value (in Million US\$), 2017 & 2022

Figure 86: Middle East and Africa: Liquid Nitrogen Market: Breakup by Country (in %), 2022

Figure 87: Middle East and Africa: Liquid Nitrogen Market Forecast: Sales Value (in Million US\$), 2023-2028

Figure 88: Global: Liquid Nitrogen Industry: SWOT Analysis

Figure 89: Global: Liquid Nitrogen Industry: Value Chain Analysis

Figure 90: Global: Liquid Nitrogen Industry: Porter's Five Forces Analysis

I would like to order

Product name: Liquid Nitrogen Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

Product link: <https://marketpublishers.com/r/L632CB753FE8EN.html>

Price: US\$ 2,499.00 (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/L632CB753FE8EN.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

