

# Global Gallium Market Outlook to 2027

<https://marketpublishers.com/r/GD1A96964653EN.html>

Date: January 2022

Pages: 155

Price: US\$ 4,490.00 (Single User License)

ID: GD1A96964653EN

## Abstracts

Gallium (Ga) is a bluish-white rare chemical element whose atomic number is 31, and it is obtained mainly as a by-product in refining various ores. According to BlueQuark Research & Consulting, the Global Gallium market is expected to witness a significant growth rate during the forecasted period. Alloys produced using Gallium have a direct bandgap, they can emit high-efficiency light and are resistant to radiation damage, making them suitable for the production of electronics such as monolithic microwave integrated circuits, microwave frequency integrated circuits, infrared light-emitting diodes, solar cells, laser diodes, and other electronics establishes it as an asset for the electronics industry is estimated to drive the Global Gallium market. In addition to this, radioactive Gallium and stable Gallium nitrate are utilized as diagnostic and therapeutic agents in cancer, calcium, and bone metabolism diseases, and the activity of Gallium compounds as antibacterial agents against specific pathogens has escalated the production of Gallium compounds for the medical industry and is expected to drive the Global Gallium market. Further, semiconducting materials are produced using Gallium integral for military applications likeradar, electronic warfare (EW), and communication systems to meet strict high-performance, high-power, and long life cycle needs are projected to drive the Global Gallium market. However, issues related to the recycling of gallium compounds, the volatile prices of Gallium, and stringent government regulations are expected to hinder the future market growth of the Gallium market.

Gallium forms alloys with most metals and is used as a component in low-melting alloys such as liquid alloy at room temperature Gallium, Indium, and Tin utilized for medical thermometers, it wets glass or porcelain, and mirrors are manufactured using Gallium and semiconductors produced with it a versatile and are crucial for mobile phones, blue and green LEDs, and pressure sensors for touch switches.

The medical industry is the vital consumer of Gallium and is expected to drive the global market. Factors such as the demand for Gallium in pharmaceuticals and

radiopharmaceuticals such as Gallium nitrate, a drug to treat hypercalcemia, Gallium maltolate, an oral, highly absorbable form of Gallium (III) ion, which has been used as an anti-proliferative to pathologically proliferating cells, and MR045, a complex amine-phenol Ga(III) compound a drug against malaria, the industry is bound to rise. This is because gallium ions interact with bodily functions in a similar way to iron ions, including inflammation, which is a marker for many disease conditions, the usage of numerous gallium salts, and interest in Gallium compounds anticancer capabilities as they were able to locate the location of tumors. Jubilant Pharmova accounted for 4% topline growth during Q2 of 2021-2022, driven by steady revenues in the Pharmaceuticals segment and robust growth in the Contract Research and Development Services (CRDS) segment. Radiopharmacy, Allergy, and CMO businesses reported growth year-over-year in the Pharmaceuticals segment. The continuous Research and Development about the possible benefits of Gallium and its non-toxic nature are escalating its demand.

Some of the market's key players are Freiburger Compound Materials, AXT Inc., Sumitomo Electric, DOWA Electronics Materials Co., Ltd., Wafer Technology, ABSCO Materials, and Vital Materials Co., Ltd., among others.

The Asia Pacific region is poised to be the leader in the production and the subsequent consumption of Gallium, with most of the consumption in countries like China and India. China and India have the World's most substantial armed forces, respectively, and the governments of both nations invest in radar, electronic warfare (EW), and communication systems and Gallium compounds ensure high-performance, high-power, and long life cycle have accelerated the demand for Gallium in the region. In addition to this, China is one of the largest producers of Gallium, and the electronics industry is one of the most prominent in the world semiconductors produced with it are versatile and crucial for mobile phones, blue and green LEDs, and pressure sensors for touch switches. Further, with the introduction of driverless cars and electric propulsion as driving forces, the industry has experienced a resurgence in the region by utilizing the increased efficiency, speed, smaller size, and cheaper cost of eGaN devices maximum potential. Furthermore, these regions' high population and urban flourishing, technological advancements, medical research, and people can lead an accomplished life credited to refined medical facilities relying on Gallium compounds. Factors like these have made Asia-Pacific an essential region for growth in the Gallium market.

In January 2022, Kura Technologies' CEO, Kelly Peng, a Forbes 30 under 30, announced that the company had been honored with a CES 2022 Innovation Award for Kura Gallium, setting the industry standard with the best performing AR glasses and

platform.

In December 2021, Indian researchers developed a high-performance industry-standard model for Aluminum Gallium nitride (AlGaIn/GaN) High Electron Mobility Transistors (HEMTs) with simple design procedures that can be used to make high-power Radio Frequency (RF) circuits owing to their high breakdown voltage.

Global Gallium Market report provides deep insight into the market's current and future state across various regions. The study comprehensively analyses the Gallium market by segmenting based on the product type (Nanoparticles, Alloys, Oxides), Form (Powder, Ingot, Pellet), Application (Catalyst, Semiconductors, Photovoltaic cells, LEDs, Others), End-user Industry (Electronics, Medical, Military, Chemical, Others), and Geography (Asia-Pacific, North America, Europe, South America, and Middle-East and Africa). The report examines the market drivers and restraints and the impact of Covid-19 on the market growth in detail. The study covers and includes emerging market trends, developments, opportunities, and challenges in the industry. This report also covers extensively researched competitive landscape sections with prominent companies and profiles, including their market shares and projects.

## Contents

### **1. Executive Summary**

### **2. Research Scope and Methodology**

2.1 Aim & Objective of the study

2.2 Market Definition

2.3 Study Information

2.4 General Study Assumptions

2.5 Research Phases

### **3. Market Analysis**

3.1 Introduction

3.2 Market Dynamics

3.2.1 Drivers

3.2.2 Restraints

3.3 Market Trends & Developments

3.4 Market Opportunities

3.5 Feedstock Analysis

3.6 Regulatory Policies

3.7 Analysis of Covid-19 Impact

### **4. Industry Analysis**

## 4.1 Supply Chain Analysis

## 4.2 Porter's Five Forces Analysis

### 4.2.1 Competition in the Industry

### 4.2.2 Potential of New Entrants into the Industry

### 4.2.3 Bargaining Power of Suppliers

### 4.2.4 Bargaining Power of Consumers

### 4.2.5 Threat of substitute products

## **5. Market Segmentation & Forecast**

### 5.1 By Product Type

#### 5.1.1 Nanoparticles

#### 5.1.2 Alloys

#### 5.1.3 Oxides

### 5.2 By Form

#### 5.2.1 Powder

#### 5.2.2 Ingot

#### 5.2.3 Pellet

### 5.3 By Application

#### 5.3.1 Catalyst

#### 5.3.2 Semiconductors

#### 5.3.3 Photovoltaic Cells

5.3.4 LEDs

5.3.5 Others

5.4 By End-User Industry

5.4.1 Electronics

5.4.2 Medical

5.4.3 Military

5.4.4 Chemical

5.4.5 Others

## **6. Regional Market Analysis**

6.1 North America

6.1.1 United States

6.1.2 Canada

6.1.3 Mexico

6.2

Europe

6.2.1 United Kingdom

6.2.2 Germany

6.2.3 Italy

6.2.4 France

6.2.5 Spain

6.2.6 Rest of Europe

6.3 South America

6.3.1 Brazil

6.3.2 Argentina

6.3.3 Rest of South America

6.4 Asia-Pacific

6.4.1 China

6.4.2 India

6.4.3 Japan

6.4.4 South Korea

#### 6.4.5 Rest of Asia-Pacific

### 6.5 Middle East & Africa

#### 6.5.1 Saudi Arabia

#### 6.5.2 South Africa

#### 6.5.3 Rest of Middle East & Africa

## 7. Key Company Profiles

7.1 Freiburger Compound Materials

7.2 AXT Inc.

7.3 Sumitomo Electric

7.4 China Crystal Technologies Co.,  
Ltd.

7.5 Shenzhou Crystal Technology  
Development Co., Ltd.

7.6 DOWA Electronics Materials Co.,  
Ltd.

7.7 Wafer Technology

7.8 Yunnan Germanium

7.9 ABSCO Materials

7.10 Shin-Etsu Chemical

7.11 Nippon Rare Metal

7.12 Vital Materials Co., Ltd.

7.13 5N Plus

7.14 Gellest, Inc.



### 7.15 ZhongNuo Advanced Materials Technology

\* *List*

*of companies is not exhaustive*

## **8. Competitive Landscape**

### 8.1 List of Notable Players in the Market

### 8.2 M&A, JV, and Agreements

### 8.3 Market Share Analysis

### 8.4 Strategies of Key Players

## **9. Conclusions and Recommendations**

## List Of Tables

### LIST OF TABLES

Global Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

North America Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

United States Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

Canada Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

Mexico Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

Europe Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

United Kingdom Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

Germany Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

Other Supporting Charts

Italy Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

France Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

Spain Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

Rest of Europe Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

South America Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

Brazil Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

Argentina Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

Rest of South America Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

Asia-Pacific Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton), 2017-2027

China Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton),  
2017-2027

India Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton),  
2017-2027

Japan Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton),  
2017-2027

South Korea Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo  
ton), 2017-2027

ASEAN Countries Gallium Market Size, Market Growth & Market Forecast Volume(in  
Kilo ton), 2017-2027

Rest of Asia-Pacific Gallium Market Size, Market Growth & Market Forecast Volume(in  
Kilo ton), 2017-2027

Middle East & Africa Gallium Market Size, Market Growth & Market Forecast Volume(in  
Kilo ton), 2017-2027

Saudi Arabia Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo  
ton), 2017-2027

South Africa Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo  
ton), 2017-2027

Rest of Middle-East & Africa Gallium Market Size, Market Growth & Market Forecast  
Volume(in Kilo ton), 2017-2027

Electronics - Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo  
ton), 2017-2027

Medical - Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton),  
2017-2027

Military - Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton),  
2017-2027

Chemical - Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton),  
2017-2027

Others - Gallium Market Size, Market Growth & Market Forecast Volume(in Kilo ton),  
2017-2027

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