

Metal Nanoparticles Market by Metal (Platinum, Gold, Silver, Iron, Copper, Nickel), Process (Chemical, Physical), End-use (Pharmaceutical & Healthcare, Electrical & electronics, Catalyst, Personal care & cosmetics) and Region - Global Forecast to 2026

<https://marketpublishers.com/r/MDAB6FA0B73EN.html>

Date: April 2022

Pages: 286

Price: US\$ 4,950.00 (Single User License)

ID: MDAB6FA0B73EN

Abstracts

The global metal nanoparticles market size is projected to grow from USD 2.4 billion in 2021 to USD 4.2 billion by 2026, at a CAGR of 11.5% between 2021 and 2026. Rising focus of government on nanotechnology research, growing popularity of gold nanoparticles in the pharmaceutical & healthcare industry, and increasing application areas of nanoparticles, are driving the market for metal nanoparticles. However, toxicity caused due to nanoparticles is expected to restrain this market. Growing pharmaceutical & healthcare industry is expected to offer significant growth opportunities to manufacturers of metal nanoparticles. The major challenge faced by players is the volatile prices of metals.

In terms of value, the silver nanoparticles segment is projected to account for the largest share of the metal nanoparticles market, by metal, during the forecast period.

Silver nanoparticles is projected to be the largest metal segment in metal nanoparticles market. Silver is a precious metal with the highest electrical conductivity among all metals. It also efficiently resists corrosion and oxidation and is predominantly used in the electrical & electronics industry. Its superior thermal and electrical conductivity among metals means it cannot be easily replaced by less expensive materials. Silver has the lowest contact resistance and the highest electrical and thermal conductivity among all metals, making it essential in the components of green technologies.

Chemical synthesis process remains the largest segment in metal nanoparticles market.

In the current scenario, chemical methods by organic and inorganic reducing agents are the most widely employed for the synthesis of metal nanoparticles. The presence of surfactants comprising functionalities (e.g., thiols, amines, acids, and alcohols) for interactions with particle surfaces can stabilize nanoparticle growth, and protect nanoparticles from sedimentation, agglomeration, or losing their surface properties.

Electrical & electronics industry is projected to register the highest CAGR during the forecast period.

Metal nanoparticles are widely employed in the electrical & electronics industry, in terms of manufacturing high-performance delicate electronics, batteries, connecting resistors, functional inks, and designing chips. The growing trend toward printed electronics, which encompass functional inks containing metallic nanoparticles, is expected to drive the demand for metal nanoparticles in the electrical & electronics industry.

The North American region leads the metal nanoparticles market in terms of value.

North America have a well-established market for metal nanoparticles. Growth in the region is owing to the growing pharmaceutical & healthcare and electrical & electronics industries coupled with supportive government initiatives for nanotechnology and its related products.

Breakdown of primaries

In-depth interviews were conducted with Chief Executive Officers (CEOs), marketing directors, other innovation and technology directors, and executives from various key organizations operating in the metal nanoparticles market, and information was gathered from secondary research to determine and verify the market size of several segments. The break-up of the primaries is as follows:

By Company Type: Tier 1 – 40%, Tier 2 – 35%, and Tier 3 – 25%

By Designation: C Level Executives– 35%, Directors – 40%, and Others – 25%

By Region: APAC – 40%, Europe – 10%, North America – 25%, the Middle East & Africa – 15%, and South America- 10%

Major players operating in the global metal nanoparticles market include American Elements (US), Nanoshel LLC (US), Nanostructured & Amorphous Materials (US), EPRUI Nanoparticles & Microspheres (China), US Research Nanomaterials (US), Tanaka Holdings (Japan), Meliorum Technology (US), Nanocomposix (US), BBI Group (UK), Sigma-Aldrich (US), and Nanocs (US).

Research Coverage:

This report provides detailed segmentation of the metal nanoparticles market based on metal, synthesis process, end-use industry, and region. Based on metal, the metal nanoparticles market has been segmented into platinum/palladium, gold, silver, copper, nickel, iron, and others. Based on synthesis process, the market has been segmented into chemical, physical, and bio based. Based on end-use industry, the market has been segmented into pharmaceutical & healthcare, electrical & electronics, catalyst, personal care & cosmetics, and others.

Key Benefits of Buying the Report:

From an insight perspective, this research report focuses on various levels of analyses — industry analysis (industry trends), market ranking of top players, and company profiles, which together comprise and discuss the basic views on the competitive landscape; emerging and high-growth segments of the metal nanoparticles market; high growth regions; and market drivers, restraints, opportunities, and challenges.

Contents

1 INTRODUCTION

1.1 STUDY OBJECTIVES

1.2 MARKET DEFINITION

1.3 INCLUSIONS AND EXCLUSIONS

1.3.1 INCLUSIONS AND EXCLUSIONS

1.4 MARKET SCOPE

FIGURE 1 METAL NANOPARTICLES MARKET SEGMENTATION

1.4.1 YEARS CONSIDERED

1.4.2 REGIONAL SCOPE

1.5 CURRENCY

1.6 UNIT CONSIDERED

1.7 STAKEHOLDERS

1.8 SUMMARY OF CHANGES

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 2 METAL NANOPARTICLES MARKET: RESEARCH DESIGN

2.1.1 SECONDARY DATA

2.1.1.1 List of major secondary sources

2.1.1.2 Key data from secondary sources

2.1.2 PRIMARY DATA

2.1.2.1 Key data from primary sources

2.1.3 PRIMARY INTERVIEWS

2.1.3.1 Primary interviews – demand and supply sides

2.1.3.2 Key industry insights

2.1.3.3 Breakdown of primary interviews

2.2 MARKET SIZE ESTIMATION

FIGURE 3 MARKET SIZE ESTIMATION APPROACH

2.2.1 TOP-DOWN APPROACH

2.2.1.1 Approach for arriving at market size using top-down analysis

FIGURE 4 TOP-DOWN APPROACH

2.2.2 BOTTOM-UP APPROACH

2.2.2.1 Approach for arriving at market size using bottom-up analysis

FIGURE 5 BOTTOM-UP APPROACH

2.3 DATA TRIANGULATION

FIGURE 6 METAL NANOPARTICLES MARKET: DATA TRIANGULATION

2.4 FACTOR ANALYSIS

2.5 ASSUMPTIONS

2.6 LIMITATIONS & RISKS ASSOCIATED WITH METAL NANOPARTICLES MARKET

3 EXECUTIVE SUMMARY

FIGURE 7 GOLD TO BE FASTEST-GROWING MARKET DURING FORECAST PERIOD

FIGURE 8 CHEMICAL SYNTHESIS PROCESS TO LEAD MARKET

FIGURE 9 PHARMACEUTICAL & HEALTHCARE INDUSTRY TO LEAD METAL NANOPARTICLES MARKET

FIGURE 10 NORTH AMERICA LED METAL NANOPARTICLES MARKET IN 2020

4 PREMIUM INSIGHTS

4.1 EMERGING ECONOMIES TO WITNESS HIGH GROWTH IN METAL NANOPARTICLES MARKET

FIGURE 11 ASIA PACIFIC TO OFFER ATTRACTIVE OPPORTUNITIES IN METAL NANOPARTICLES MARKET DURING FORECAST PERIOD

4.2 METAL NANOPARTICLES MARKET, BY METAL

FIGURE 12 SILVER TO LEAD MARKET DURING FORECAST PERIOD

4.3 METAL NANOPARTICLES MARKET, BY SYNTHESIS PROCESS

FIGURE 13 CHEMICAL PROCESS SEGMENT TO WITNESS HIGHER CAGR

4.4 METAL NANOPARTICLES MARKET, BY END-USE INDUSTRY

FIGURE 14 PHARMACEUTICAL & HEALTHCARE END-USE INDUSTRY TO LEAD MARKET BY 2026

4.5 METAL NANOPARTICLES MARKET, BY COUNTRY

FIGURE 15 MARKET IN CHINA TO REGISTER HIGHEST CAGR

5 MARKET OVERVIEW

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

FIGURE 16 DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES IN METAL NANOPARTICLES MARKET

5.2.1 DRIVERS

5.2.1.1 Rising focus of government on nanotechnology research

5.2.1.2 Growing popularity of gold nanoparticles in pharmaceutical & healthcare

industry

5.2.1.3 Increasing application areas of nanoparticles

5.2.2 RESTRAINTS

5.2.2.1 Toxicity caused due to nanoparticles

5.2.3 OPPORTUNITIES

5.2.3.1 Growing pharmaceutical & healthcare industry

5.2.4 CHALLENGES

5.2.4.1 Volatile prices of metals

5.3 PORTER'S FIVE FORCES ANALYSIS

FIGURE 17 METAL NANOPARTICLES MARKET: PORTER'S FIVE FORCES ANALYSIS

TABLE 1 METAL NANOPARTICLES MARKET: PORTER'S FIVE FORCES ANALYSIS

5.3.1 THREAT OF NEW ENTRANTS

5.3.2 THREAT OF SUBSTITUTES

5.3.3 BARGAINING POWER OF SUPPLIERS

5.3.4 BARGAINING POWER OF BUYERS

5.3.5 INTENSITY OF COMPETITIVE RIVALRY

5.4 ECOSYSTEM MAPPING

FIGURE 18 METAL NANOPARTICLES ECOSYSTEM

5.5 TRADE ANALYSIS

TABLE 2 PRECIOUS METALS IMPORT DATA, 2020 (USD THOUSAND)

TABLE 3 PRECIOUS METALS EXPORT DATA, 2020 (USD THOUSAND)

5.6 REGULATORY ANALYSIS

5.6.1 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 4 LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

5.7 PRICING ANALYSIS

5.8 TECHNOLOGY ANALYSIS

5.9 KEY CONFERENCES & EVENTS IN 2022-2023

TABLE 5 METAL NANOPARTICLES MARKET: DETAILED LIST OF CONFERENCES & EVENTS

5.10 CASE STUDY ANALYSIS

5.10.1 AMERICAN ELEMENTS DEVELOPS NEW PRECIOUS METAL CATALYST FOR GREENER ROCKET FUEL

5.11 PATENT ANALYSIS

5.11.1 METHODOLOGY

5.11.2 DOCUMENT TYPE

FIGURE 19 GRANTED PATENTS

FIGURE 20 PUBLICATION TRENDS - LAST 10 YEARS

5.11.3 INSIGHT

5.11.4 LEGAL STATUS OF PATENTS

FIGURE 21 LEGAL STATUS**FIGURE 22 TOP JURISDICTION-BY DOCUMENT**

5.11.5 TOP COMPANIES/APPLICANTS

FIGURE 23 TOP 10 COMPANIES/APPLICANTS WITH HIGHEST NO. OF PATENTS**TABLE 6 PATENTS BY LG CHEMICAL LTD.****TABLE 7 PATENTS BY XEROX CORPORATION****TABLE 8 PATENTS BY KOREA ADVANCED INSTITUTE SCIENCE AND TECHNOLOGY****TABLE 9 TOP 10 PATENT OWNERS (US) IN LAST 10 YEARS****5.12 IMPACT OF COVID-19 ON METAL NANOPARTICLES MARKET**

5.12.1 COVID-19 IMPACT ON END-USE INDUSTRIES

5.12.1.1 Pharmaceutical & Healthcare

5.12.1.2 Personal Care & Cosmetics

5.12.1.3 Electrical & Electronics

5.12.1.4 Catalyst

5.12.1.5 Others

6 METAL NANOPARTICLES MARKET, BY METAL**6.1 INTRODUCTION****FIGURE 24 GOLD NANOPARTICLES TO BE FASTEST-GROWING SEGMENT, BY METAL****TABLE 10 METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD MILLION)****TABLE 11 METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD MILLION)****TABLE 12 METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (TON)****TABLE 13 METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (TON)****6.2 PLATINUM/PALLADIUM****6.2.1 PHYSICAL AND CHEMICAL PROPERTIES SUITABLE FOR RESEARCH APPLICATIONS****TABLE 14 PLATINUM/PALLADIUM: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (USD THOUSAND)****TABLE 15 PLATINUM/PALLADIUM: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (USD THOUSAND)****TABLE 16 PLATINUM/PALLADIUM: METAL NANOPARTICLES MARKET SIZE, BY**

REGION, 2017–2020 (KG)

TABLE 17 PLATINUM/PALLADIUM: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (KG)

6.3 GOLD

6.3.1 LOW MELTING POINT LEADING TO INCREASING DEMAND IN THIS SEGMENT

TABLE 18 GOLD: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (USD THOUSAND)

TABLE 19 GOLD: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (USD THOUSAND)

TABLE 20 GOLD: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (KG)

TABLE 21 GOLD: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (KG)

6.4 SILVER

6.4.1 HIGH-TEMPERATURE RESISTANCE AND ELECTRICAL CONDUCTIVITY RESULTING IN HIGH DEMAND FOR SILVER

TABLE 22 SILVER: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (USD THOUSAND)

TABLE 23 SILVER: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (USD THOUSAND)

TABLE 24 SILVER: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (KG)

TABLE 25 SILVER: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (KG)

6.5 COPPER

6.5.1 INCREASING DEMAND FROM ELECTRICAL & ELECTRONICS INDUSTRY

TABLE 26 COPPER: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (USD THOUSAND)

TABLE 27 COPPER: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (USD THOUSAND)

TABLE 28 COPPER: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (KG)

TABLE 29 COPPER: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (KG)

6.6 NICKEL

6.6.1 THERMAL RESISTANCE, BETTER REACTIVITY, SEMICONDUCTOR CONDUCTION PROPERTIES, DRIVING DEMAND IN THIS SEGMENT

TABLE 30 NICKEL: METAL NANOPARTICLES MARKET SIZE, BY REGION,

2017–2020 (USD THOUSAND)

TABLE 31 NICKEL: METAL NANOPARTICLES MARKET SIZE, BY REGION,
2021–2026 (USD THOUSAND)

TABLE 32 NICKEL: METAL NANOPARTICLES MARKET SIZE, BY REGION,
2017–2020 (KG)

TABLE 33 NICKEL: METAL NANOPARTICLES MARKET SIZE, BY REGION,
2021–2026 (KG)

6.7 IRON

6.7.1 INCREASING APPLICATIONS OF METAL TO DRIVE SEGMENT

TABLE 34 IRON: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020
(USD THOUSAND)

TABLE 35 IRON: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026
(USD THOUSAND)

TABLE 36 IRON: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020
(KG)

TABLE 37 IRON: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026
(KG)

6.8 OTHERS

TABLE 38 OTHER METAL NANOPARTICLES MARKET SIZE, BY REGION,
2017–2020 (USD THOUSAND)

TABLE 39 OTHER METAL NANOPARTICLES MARKET SIZE, BY REGION,
2021–2026 (USD THOUSAND)

TABLE 40 OTHER METAL NANOPARTICLES MARKET SIZE, BY REGION,
2017–2020 (KG)

TABLE 41 OTHER METAL NANOPARTICLES MARKET SIZE, BY REGION,
2021–2026 (KG)

7 METAL NANOPARTICLES MARKET, BY SYNTHESIS PROCESS

7.1 INTRODUCTION

FIGURE 25 CHEMICAL SYNTHESIS PROCESS REMAINS LARGEST SEGMENT IN
METAL NANOPARTICLES MARKET

TABLE 42 METAL NANOPARTICLES MARKET SIZE, BY SYNTHESIS PROCESS,
2017–2020 (USD MILLION)

TABLE 43 METAL NANOPARTICLES MARKET SIZE, BY SYNTHESIS PROCESS,
2021–2026 (USD MILLION)

TABLE 44 METAL NANOPARTICLES MARKET SIZE, BY SYNTHESIS PROCESS,
2017–2020 (TON)

TABLE 45 METAL NANOPARTICLES MARKET SIZE, BY SYNTHESIS PROCESS,

2021–2026 (TON)

7.2 CHEMICAL

7.2.1 VERSATILITY, LOW TEMPERATURE OF PROCESSING, AND EASY SHAPING TO DRIVE SEGMENT

7.3 PHYSICAL

7.3.1 NO USE OF TOXIC CHEMICALS, PURITY, UNIFORM SIZE AND SHAPE TO LEAD GROWTH OF SEGMENT IN MARKET

7.4 BIO BASED

7.4.1 LOW COST AND ENVIRONMENT-FRIENDLY NATURE OF BIO-BASED METHODS TO DRIVE SEGMENT

8 METAL NANOPARTICLES MARKET, BY END-USE INDUSTRY

8.1 INTRODUCTION

FIGURE 26 PHARMACEUTICAL & HEALTHCARE INDUSTRY WAS LARGEST END-USE SEGMENT IN 2021

TABLE 46 METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 47 METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 48 METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 49 METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

8.2 PHARMACEUTICAL & HEALTHCARE

8.2.1 PHARMACEUTICAL & HEALTHCARE SEGMENT LED METAL NANOPARTICLES MARKET IN 2020

TABLE 50 PHARMACEUTICAL & HEALTHCARE: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (USD THOUSAND)

TABLE 51 PHARMACEUTICAL & HEALTHCARE: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (USD THOUSAND)

TABLE 52 PHARMACEUTICAL & HEALTHCARE: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (KG)

TABLE 53 PHARMACEUTICAL & HEALTHCARE: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (KG)

8.2.2 DRUG DELIVERY

8.2.3 CANCER TREATMENT

8.2.4 BIOIMAGING

8.2.5 OTHERS

8.3 ELECTRICAL & ELECTRONICS

8.3.1 EMERGING TREND OF MINIATURIZATION IN ELECTRICAL & ELECTRONICS INDUSTRY TO DRIVE SEGMENT

TABLE 54 ELECTRICAL & ELECTRONICS: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (USD THOUSAND)

TABLE 55 ELECTRICAL & ELECTRONICS: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (USD THOUSAND)

TABLE 56 ELECTRICAL & ELECTRONICS: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (KG)

TABLE 57 ELECTRICAL & ELECTRONICS: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (KG)

8.3.2 CIRCUIT BOARDS

8.3.3 BATTERIES

8.3.4 CONNECTING RESISTORS

8.3.5 FUNCTIONAL INKS

8.3.6 DESIGNING CHIPS

8.3.7 OTHERS

8.4 CATALYST

8.4.1 VARIOUS APPLICATIONS OF CATALYSTS IN DIFFERENT INDUSTRIES DRIVING SEGMENT

TABLE 58 CATALYST: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (USD THOUSAND)

TABLE 59 CATALYST: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (USD THOUSAND)

TABLE 60 CATALYST: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (KG)

TABLE 61 CATALYST: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (KG)

8.4.2 REFINERY

8.4.3 INDUSTRIAL

8.4.4 AUTOMOTIVE

8.5 PERSONAL CARE & COSMETICS

8.5.1 VERSATILITY AND UNIQUE PROPERTIES OF METAL NANOPARTICLES MAKE THEM SUITABLE FOR USE IN PERSONAL CARE & CONSUMER PRODUCTS

TABLE 62 PERSONAL CARE & COSMETICS: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (USD THOUSAND)

TABLE 63 PERSONAL CARE & COSMETICS: METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (USD THOUSAND)

TABLE 64 PERSONAL CARE & COSMETICS: METAL NANOPARTICLES MARKET

SIZE, BY REGION, 2017–2020 (KG)

TABLE 65 PERSONAL CARE & COSMETICS: METAL NANOPARTICLES MARKET

SIZE, BY REGION, 2021–2026 (KG)

8.5.2 COSMECEUTICALS

8.5.3 SKIN CARE

8.5.4 HAIR CARE

8.6 OTHERS

TABLE 66 OTHER END-USE INDUSTRIES: METAL NANOPARTICLES MARKET
SIZE, BY REGION, 2017–2020 (USD THOUSAND)

TABLE 67 OTHER END-USE INDUSTRIES: METAL NANOPARTICLES MARKET
SIZE, BY REGION, 2021–2026 (USD THOUSAND)

TABLE 68 OTHER END-USE INDUSTRIES: METAL NANOPARTICLES MARKET
SIZE, BY REGION, 2017–2020 (KG)

TABLE 69 OTHER END-USE INDUSTRIES: METAL NANOPARTICLES MARKET
SIZE, BY REGION, 2021–2026 (KG)

9 METAL NANOPARTICLES MARKET, BY REGION

9.1 INTRODUCTION

TABLE 70 INTERIM ECONOMIC OUTLOOK FORECAST, 2019 TO 2021

FIGURE 27 CHINA TO BE FASTEST-GROWING MARKET

TABLE 71 METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (USD
MILLION)

TABLE 72 METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (USD
MILLION)

TABLE 73 METAL NANOPARTICLES MARKET SIZE, BY REGION, 2017–2020 (TON)

TABLE 74 METAL NANOPARTICLES MARKET SIZE, BY REGION, 2021–2026 (TON)

9.2 NORTH AMERICA

9.2.1 IMPACT OF COVID-19 IN NORTH AMERICA

FIGURE 28 NORTH AMERICA: METAL NANOPARTICLES MARKET SNAPSHOT

TABLE 75 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY
COUNTRY, 2017–2020 (USD THOUSAND)

TABLE 76 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY
COUNTRY, 2021–2026 (USD THOUSAND)

TABLE 77 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY
COUNTRY, 2017–2020 (KG)

TABLE 78 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY
COUNTRY, 2021–2026 (KG)

TABLE 79 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL,

2017–2020 (USD THOUSAND)

TABLE 80 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 81 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 82 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 83 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 84 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 85 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 86 NORTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.2.2 US

9.2.2.1 Continued investments in national nanotechnology initiatives

TABLE 87 US: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 88 US: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 89 US: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 90 US: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 91 US: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 92 US: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 93 US: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 94 US: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.2.3 CANADA

9.2.3.1 Supportive rewarding systems for research activities related to nanoparticles

TABLE 95 CANADA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 96 CANADA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 97 CANADA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 98 CANADA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 99 CANADA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 100 CANADA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 101 CANADA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 102 CANADA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.2.4 MEXICO

9.2.4.1 Attractive destination for investments in pharmaceutical sector

TABLE 103 MEXICO: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 104 MEXICO: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 105 MEXICO: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 106 MEXICO: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 107 MEXICO: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 108 MEXICO: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 109 MEXICO: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 110 MEXICO: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.3 ASIA PACIFIC

9.3.1 IMPACT OF COVID-19 IN ASIA PACIFIC

FIGURE 29 ASIA PACIFIC: METAL NANOPARTICLES MARKET SNAPSHOT

TABLE 111 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2017–2020 (USD THOUSAND)

TABLE 112 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2021–2026 (USD THOUSAND)

TABLE 113 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2017–2020 (KG)

TABLE 114 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2021–2026 (KG)

TABLE 115 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 116 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 117 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 118 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 119 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 120 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 121 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 122 ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.3.2 CHINA

9.3.2.1 China to remain dominant market for metal nanoparticles in Asia Pacific

TABLE 123 CHINA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 124 CHINA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 125 CHINA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 126 CHINA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 127 CHINA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 128 CHINA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 129 CHINA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 130 CHINA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.3.3 JAPAN

9.3.3.1 Increasing government initiatives to drive market

TABLE 131 JAPAN: METAL NANOPARTICLES MARKET SIZE, BY METAL,

2017–2020 (USD THOUSAND)

TABLE 132 JAPAN: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 133 JAPAN: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 134 JAPAN: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 135 JAPAN: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 136 JAPAN: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 137 JAPAN: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 138 JAPAN: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.3.4 INDIA

9.3.4.1 Increasing demand in the electrical & electronics industry to drive metal nanoparticles market

TABLE 139 INDIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 140 INDIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 141 INDIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 142 INDIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 143 INDIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 144 INDIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 145 INDIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 146 INDIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.3.5 SOUTH KOREA

9.3.5.1 Rapid economic growth and a strong healthcare sector to boost market

TABLE 147 SOUTH KOREA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 148 SOUTH KOREA: METAL NANOPARTICLES MARKET SIZE, BY METAL,

2021–2026 (USD THOUSAND)

TABLE 149 SOUTH KOREA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 150 SOUTH KOREA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 151 SOUTH KOREA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 152 SOUTH KOREA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 153 SOUTH KOREA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 154 SOUTH KOREA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.3.6 AUSTRALIA

9.3.6.1 Government investments in nanotechnology research to influence market growth

TABLE 155 AUSTRALIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 156 AUSTRALIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 157 AUSTRALIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 158 AUSTRALIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 159 AUSTRALIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 160 AUSTRALIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 161 AUSTRALIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 162 AUSTRALIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.3.7 REST OF ASIA PACIFIC

TABLE 163 REST OF ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 164 REST OF ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 165 REST OF ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 166 REST OF ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 167 REST OF ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 168 REST OF ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 169 REST OF ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 170 REST OF ASIA PACIFIC: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.4 EUROPE

9.4.1 IMPACT OF COVID-19 IN EUROPE

FIGURE 30 ELECTRICAL & ELECTRONICS TO BE FASTEST-GROWING INDUSTRY IN EUROPE

TABLE 171 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2017–2020 (USD THOUSAND)

TABLE 172 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2021–2026 (USD THOUSAND)

TABLE 173 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2017–2020 (KG)

TABLE 174 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2021–2026 (KG)

TABLE 175 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 176 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 177 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 178 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 179 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 180 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 181 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 182 EUROPE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.4.2 GERMANY

9.4.2.1 Smart manufacturing and e-mobility to drive the German electrical & electronics industry

TABLE 183 GERMANY: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 184 GERMANY: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 185 GERMANY: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 186 GERMANY: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 187 GERMANY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 188 GERMANY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 189 GERMANY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 190 GERMANY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.4.3 UK

9.4.3.1 Significant application of metal nanoparticles in wastewater treatment

TABLE 191 UK: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 192 UK: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 193 UK: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 194 UK: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 195 UK: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 196 UK: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 197 UK: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 198 UK: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.4.4 FRANCE

9.4.4.1 Demand for innovative drug solutions creating scope for metal nanoparticles in France's pharmaceutical & healthcare industry

TABLE 199 FRANCE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 200 FRANCE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 201 FRANCE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 202 FRANCE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 203 FRANCE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 204 FRANCE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 205 FRANCE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 206 FRANCE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.4.5 ITALY

9.4.5.1 Economic recovery, electrical & electronics industry growth, and substantial refining capacity increasing demand for metal nanoparticles

TABLE 207 ITALY: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 208 ITALY: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 209 ITALY: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 210 ITALY: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 211 ITALY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 212 ITALY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 213 ITALY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 214 ITALY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.4.6 RUSSIA

9.4.6.1 Government support and investments in nanotechnology to drive market

TABLE 215 RUSSIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 216 RUSSIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 217 RUSSIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 218 RUSSIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 219 RUSSIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 220 RUSSIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 221 RUSSIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 222 RUSSIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.4.7 SPAIN

9.4.7.1 Demand for innovative medicines to boost domestic pharmaceuticals market

TABLE 223 SPAIN: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 224 SPAIN: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 225 SPAIN: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 226 SPAIN: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 227 SPAIN: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 228 SPAIN: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 229 SPAIN: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 230 SPAIN: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.4.8 REST OF EUROPE

TABLE 231 REST OF EUROPE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 232 REST OF EUROPE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 233 REST OF EUROPE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 234 REST OF EUROPE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 235 REST OF EUROPE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 236 REST OF EUROPE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 237 REST OF EUROPE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 238 REST OF EUROPE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.5 MIDDLE EAST & AFRICA

9.5.1 IMPACT OF COVID-19 IN MIDDLE EAST & AFRICA

TABLE 239 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2017–2020 (USD THOUSAND)

TABLE 240 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2021–2026 (USD THOUSAND)

TABLE 241 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2017–2020 (KG)

TABLE 242 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2021–2026 (KG)

TABLE 243 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 244 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 245 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 246 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 247 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 248 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 249 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 250 MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.5.2 TURKEY

9.5.2.1 One of the major exporters and producers of electrical & electronics products

TABLE 251 TURKEY: METAL NANOPARTICLES MARKET SIZE, BY METAL,

2017–2020 (USD THOUSAND)

TABLE 252 TURKEY: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 253 TURKEY: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 254 TURKEY: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 255 TURKEY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 256 TURKEY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 257 TURKEY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 258 TURKEY: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.5.3 SAUDI ARABIA

9.5.3.1 Positive trend in Saudi industrial exports of electrical machines and equipment & tools to drive market

TABLE 259 SAUDI ARABIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 260 SAUDI ARABIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 261 SAUDI ARABIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 262 SAUDI ARABIA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 263 SAUDI ARABIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 264 SAUDI ARABIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 265 SAUDI ARABIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 266 SAUDI ARABIA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.5.4 UAE

9.5.4.1 Rising demand for portable consumer electronics and supportive government initiatives to attract manufacturers

TABLE 267 UAE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 268 UAE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 269 UAE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 270 UAE: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 271 UAE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 272 UAE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 273 UAE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 274 UAE: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.5.5 SOUTH AFRICA

9.5.5.1 Supportive government initiatives enhancing healthcare system to boost domestic healthcare sector

TABLE 275 SOUTH AFRICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 276 SOUTH AFRICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 277 SOUTH AFRICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 278 SOUTH AFRICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 279 SOUTH AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 280 SOUTH AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 281 SOUTH AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 282 SOUTH AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.5.6 REST OF MIDDLE EAST & AFRICA

TABLE 283 REST OF MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 284 REST OF MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 285 REST OF MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET

SIZE, BY METAL, 2017–2020 (KG)

TABLE 286 REST OF MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 287 REST OF MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 288 REST OF MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 289 REST OF MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 290 REST OF MIDDLE EAST & AFRICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.6 SOUTH AMERICA

9.6.1 IMPACT OF COVID-19 IN SOUTH AMERICA

TABLE 291 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2017–2020 (USD THOUSAND)

TABLE 292 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2021–2026 (USD THOUSAND)

TABLE 293 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2017–2020 (KG)

TABLE 294 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY COUNTRY, 2021–2026 (KG)

TABLE 295 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 296 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 297 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 298 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 299 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 300 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 301 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 302 SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.6.2 BRAZIL

9.6.2.1 Manufacturers establishing electronics manufacturing plants

TABLE 303 BRAZIL: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 304 BRAZIL: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 305 BRAZIL: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 306 BRAZIL: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 307 BRAZIL: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 308 BRAZIL: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 309 BRAZIL: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 310 BRAZIL: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.6.3 ARGENTINA

9.6.3.1 Rising government support to promote electronics manufacturing

TABLE 311 ARGENTINA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 312 ARGENTINA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 313 ARGENTINA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 314 ARGENTINA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 315 ARGENTINA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 316 ARGENTINA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 317 ARGENTINA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 318 ARGENTINA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

9.6.4 REST OF SOUTH AMERICA

TABLE 319 REST OF SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (USD THOUSAND)

TABLE 320 REST OF SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (USD THOUSAND)

TABLE 321 REST OF SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2017–2020 (KG)

TABLE 322 REST OF SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY METAL, 2021–2026 (KG)

TABLE 323 REST OF SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD THOUSAND)

TABLE 324 REST OF SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD THOUSAND)

TABLE 325 REST OF SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (KG)

TABLE 326 REST OF SOUTH AMERICA: METAL NANOPARTICLES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (KG)

10 COMPETITIVE LANDSCAPE

10.1 INTRODUCTION

10.2 MARKET EVALUATION FRAMEWORK

FIGURE 31 PARTNERSHIP WAS MOST ADOPTED STRATEGY BY METAL NANOPARTICLES MANUFACTURERS

10.3 MARKET RANKING ANALYSIS

FIGURE 32 RANKING OF TOP FIVE PLAYERS IN METAL NANOPARTICLES MARKET, 2020

10.3.1 AMERICAN ELEMENTS

10.3.2 NANOSHEL LLC

10.3.3 NANOSTRUCTURED & AMORPHOUS MATERIALS

10.3.4 EPRUI NANOPARTICLES & MICROSPHERES

10.3.5 US RESEARCH NANOMATERIALS

10.4 COMPANY EVALUATION MATRIX (TIER 1)

10.4.1 STAR

10.4.2 PERVASIVE

10.4.3 EMERGING LEADERS

10.4.4 PARTICIPANTS

FIGURE 33 METAL NANOPARTICLES MARKET: COMPANY EVALUATION MATRIX, 2020

10.5 START-UP/SMALL AND MEDIUM-SIZED ENTERPRISES (SMES) EVALUATION MATRIX

10.5.1 PROGRESSIVE COMPANIES

10.5.2 RESPONSIVE COMPANIES

10.5.3 STARTING BLOCKS

10.5.4 DYNAMIC COMPANIES

FIGURE 34 START-UP/SMES EVALUATION MATRIX FOR METAL NANOPARTICLES MARKET

10.6 COMPETITIVE BENCHMARKING

TABLE 327 METAL NANOPARTICLES MARKET: DETAILED LIST OF KEY STARTUP/SMES

TABLE 328 METAL NANOPARTICLES MARKET: COMPETITIVE BENCHMARKING OF KEY PLAYERS [STARTUPS/SMES]

11 COMPANY PROFILES

(Business Overview, Products Offered, Recent Developments, MnM View Right to win, Strategic choices made, Weaknesses and competitive threats) *

11.1 KEY COMPANIES

11.1.1 AMERICAN ELEMENTS

TABLE 329 AMERICAN ELEMENTS: BUSINESS OVERVIEW

11.1.2 NANOSHEL LLC

TABLE 330 NANOSHEL LLC: BUSINESS OVERVIEW

11.1.3 NANOSTRUCTURED & AMORPHOUS MATERIALS

TABLE 331 NANOSTRUCTURED & AMORPHOUS MATERIALS: BUSINESS OVERVIEW

11.1.4 EPRUI NANOPARTICLES & MICROSPHERES

TABLE 332 EPRUI NANOPARTICLES & MICROSPHERES: BUSINESS OVERVIEW

11.1.5 US RESEARCH NANOMATERIALS

TABLE 333 US RESEARCH NANOMATERIALS: BUSINESS OVERVIEW

11.1.6 TANAKA HOLDINGS

TABLE 334 TANAKA HOLDINGS: BUSINESS OVERVIEW

11.1.7 MELIORUM TECHNOLOGY

TABLE 335 MELIORUM TECHNOLOGY: BUSINESS OVERVIEW

11.1.8 NANOCOMPOSIX

TABLE 336 NANOCOMPOSIX: BUSINESS OVERVIEW

11.1.9 BBI GROUP

TABLE 337 BBI GROUP: BUSINESS OVERVIEW

11.1.10 SIGMA-ALDRICH

TABLE 338 SIGMA-ALDRICH: BUSINESS OVERVIEW

11.1.11 NANOCS

TABLE 339 NANOCS: BUSINESS OVERVIEW

11.2 OTHER COMPANIES

11.2.1 STREM CHEMICALS

TABLE 340 STREM CHEMICALS: COMPANY OVERVIEW

11.2.2 CLINE SCIENTIFIC

TABLE 341 CLINE SCIENTIFIC: COMPANY OVERVIEW

11.2.3 NANO LABS

TABLE 342 NANO LABS: COMPANY OVERVIEW

11.2.4 CYTODIAGNOSTICS

TABLE 343 CYTODIAGNOSTICS: COMPANY OVERVIEW

11.2.5 NANOPARTZ

TABLE 344 NANOPARTZ: COMPANY OVERVIEW

11.2.6 HONGWU INTERNATIONAL GROUP

TABLE 345 HONGWU INTERNATIONAL GROUP: COMPANY OVERVIEW

11.2.7 INNOVA BIOSCIENCES

TABLE 346 INNOVA BIOSCIENCES: COMPANY OVERVIEW

11.2.8 BLACKTRACE HOLDINGS

TABLE 347 BLACKTRACE HOLDINGS: COMPANY OVERVIEW

11.2.9 QUANTUMSPHERE

TABLE 348 QUANTUMSPHERE: COMPANY OVERVIEW

11.2.10 SEASHELL TECHNOLOGY

TABLE 349 SEASHELL TECHNOLOGY: COMPANY OVERVIEW

11.2.11 PARTICULAR GMBH

TABLE 350 PARTICULAR GMBH: COMPANY OVERVIEW

11.2.12 PLASMACHEM

TABLE 351 PLASMACHEM: COMPANY OVERVIEW

11.2.13 SKYSPRING NANOMATERIALS

TABLE 352 SKYSPRING NANOMATERIALS: COMPANY OVERVIEW

*Details on Business Overview, Products Offered, Recent Developments, MnM View, Right to win, Strategic choices made, Weaknesses and competitive threats might not be captured in case of unlisted companies.

12 APPENDIX

12.1 DISCUSSION GUIDE

12.2 KNOWLEDGE STORE: MARKETSandMARKETS' SUBSCRIPTION PORTAL

12.3 AVAILABLE CUSTOMIZATIONS

12.4 RELATED REPORTS

12.5 AUTHOR DETAILS

I would like to order

Product name: Metal Nanoparticles Market by Metal (Platinum, Gold, Silver, Iron, Copper, Nickel), Process (Chemical, Physical), End-use (Pharmaceutical & Healthcare, Electrical & electronics, Catalyst, Personal care & cosmetics) and Region - Global Forecast to 2026

Product link: <https://marketpublishers.com/r/MDAB6FA0B73EN.html>

Price: US\$ 4,950.00 (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/MDAB6FA0B73EN.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