

North America Muconic Acid Market by Manufacturers, Countries, Type and Application, Forecast to 2022

https://marketpublishers.com/r/N5EE521FBC2EN.html

Date: May 2017 Pages: 117 Price: US\$ 4,480.00 (Single User License) ID: N5EE521FBC2EN

Abstracts

Muconic acid is a dicarboxylic acid. There are three isomeric forms designated trans,trans-muconic acid, cis,trans-muconic acid, and cis,cis-muconic acid which differ by the geometry around the double bonds.

Scope of the Report:

This report focuses on the Muconic Acid in North America market, especially in United States, Canada and Mexico. This report categorizes the market based on manufacturers, countries, type and application.

Market Segment by Manufacturers, this report covers

Myriant Amyris Santa Cruz Biotechnology Sigma-Aldrich Corporation TCI Toronto Research Chemicals

Zhongxing Flavors & Fragrance



Alfa Aesar

Thermo Fisher Scientific

Dynacare

Market Segment by Countries, covering

United States

Canada

Mexico

Market Segment by Type, covers

Trans, Trans-Muconic Acid

Cis, Cis-Muconic Acid

Cis, Trans-Muconic Acid

Market Segment by Applications, can be divided into

Adipic Acid

Scientific Research

Others

There are 15 Chapters to deeply display the North America Muconic Acid market.

Chapter 1, to describe Muconic Acid Introduction, product type and application, market overview, market analysis by countries, market opportunities, market risk, market



driving force;

Chapter 2, to analyze the manufacturers of Muconic Acid, with profile, main business, news, sales, price, revenue and market share in 2016 and 2017;

Chapter 3, to display the competitive situation among the top manufacturers, with profile, main business, news, sales, price, revenue and market share in 2016 and 2017;

Chapter 4, to show the North America market by countries, covering United States, Canada and Mexico, with sales, revenue and market share of Muconic Acid, for each country, from 2012 to 2017;

Chapter 5 and 6, to show the market by type and application, with sales, price, revenue, market share and growth rate by type, application, from 2012 to 2017;

Chapter 7, 8 and 9, to analyze the segment market in United States, Canada and Mexico, by manufacturers, type and application, with sales, price, revenue and market share by manufacturers, types and applications;

Chapter 10, Muconic Acid market forecast, by countries, type and application, with sales, price and revenue, from 2017 to 2022;

Chapter 11, to analyze the manufacturing cost, key raw materials and manufacturing process etc.

Chapter 12, to analyze the industrial chain, sourcing strategy and downstream end users (buyers);

Chapter 13, to describe sales channel, distributors, traders, dealers etc.

Chapter 14 and 15, to describe Muconic Acid Research Findings and Conclusion, Appendix, methodology and data source





Contents

1 MARKET OVERVIEW

- 1.1 Muconic Acid Introduction
- 1.2 Market Analysis by Type
- 1.2.1 Trans, Trans-Muconic Acid
- 1.2.2 Cis, Cis-Muconic Acid
- 1.2.3 Cis, Trans-Muconic Acid
- 1.3 Market Analysis by Applications
- 1.3.1 Adipic Acid
- 1.3.2 Scientific Research
- 1.3.3 Others
- 1.4 Market Analysis by Countries
- 1.4.1 United States Status and Prospect (2012-2022)
- 1.4.2 Mexico Status and Prospect (2012-2022)
- 1.4.3 Canada Status and Prospect (2012-2022)
- 1.5 Market Dynamics
 - 1.5.1 Market Opportunities
 - 1.5.2 Market Risk
 - 1.5.3 Market Driving Force

2 MANUFACTURERS PROFILES

- 2.1 Myriant
 - 2.1.1 Profile
 - 2.1.2 Muconic Acid Type and Applications
 - 2.1.2.1 Type
 - 2.1.2.2 Type
- 2.1.3 Myriant Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share
- (2016-2017)
 - 2.1.4 Business Overview
 - 2.1.5 Myriant News
- 2.2 Amyris
 - 2.2.1 Profile
 - 2.2.2 Muconic Acid Type and Applications
 - 2.2.2.1 Type
 - 2.2.2.2 Type
 - 2.2.3 Amyris Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share



(2016-2017)

2.2.4 Business Overview

2.2.5 Amyris News

2.3 Santa Cruz Biotechnology

2.3.1 Profile

2.3.2 Muconic Acid Type and Applications

2.3.2.1 Type

2.3.2.2 Type

2.3.3 Santa Cruz Biotechnology Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

2.3.4 Business Overview

2.3.5 Santa Cruz Biotechnology News

2.4 Sigma-Aldrich Corporation

2.4.1 Profile

2.4.2 Muconic Acid Type and Applications

2.4.2.1 Type

2.4.2.2 Type

2.4.3 Sigma-Aldrich Corporation Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

2.4.4 Business Overview

2.4.5 Sigma-Aldrich Corporation News

2.5 TCI

2.5.1 Profile

2.5.2 Muconic Acid Type and Applications

2.5.2.1 Type

2.5.2.2 Type

2.5.3 TCI Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share

(2016-2017)

2.5.4 Business Overview

2.5.5 TCI News

2.6 Toronto Research Chemicals

2.6.1 Profile

2.6.2 Muconic Acid Type and Applications

2.6.2.1 Type

2.6.2.2 Type

2.6.3 Toronto Research Chemicals Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

2.6.4 Business Overview

2.6.5 Toronto Research Chemicals News



- 2.7 Zhongxing Flavors & Fragrance
 - 2.7.1 Profile
 - 2.7.2 Muconic Acid Type and Applications
 - 2.7.2.1 Type
 - 2.7.2.2 Type

2.7.3 Zhongxing Flavors & Fragrance Muconic Acid Sales, Price, Revenue, Gross

Margin and Market Share (2016-2017)

- 2.7.4 Business Overview
- 2.7.5 Zhongxing Flavors & Fragrance News
- 2.8 Alfa Aesar
 - 2.8.1 Profile
 - 2.8.2 Muconic Acid Type and Applications
 - 2.8.2.1 Type
 - 2.8.2.2 Type
- 2.8.3 Alfa Aesar Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)
 - 2.8.4 Business Overview
 - 2.8.5 Alfa Aesar News
- 2.9 Thermo Fisher Scientific
 - 2.9.1 Profile
 - 2.9.2 Muconic Acid Type and Applications
 - 2.9.2.1 Type
 - 2.9.2.2 Type

2.9.3 Thermo Fisher Scientific Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

2.9.4 Business Overview

2.9.5 Thermo Fisher Scientific News

2.10 Dynacare

- 2.10.1 Profile
- 2.10.2 Muconic Acid Type and Applications
- 2.10.2.1 Type
- 2.10.2.2 Type

2.10.3 Dynacare Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

- 2.10.4 Business Overview
- 2.10.5 Dynacare News

3 NORTH AMERICA MUCONIC ACID MARKET COMPETITION, BY MANUFACTURER

North America Muconic Acid Market by Manufacturers, Countries, Type and Application, Forecast to 2022



3.1 North America Muconic Acid Sales and Market Share by Manufacturer (2016-2017)

3.2 North America Muconic Acid Revenue and Market Share by Manufacturer (2016-2017)

- 3.3 North America Muconic Acid Price by Manufacturers (2016-2017)
- 3.4 Market Concentration Rate
 - 3.4.1 Top 3 Muconic Acid Manufacturer Market Share
- 3.4.2 Top 5 Muconic Acid Manufacturer Market Share
- 3.5 Market Competition Trend

4 NORTH AMERICA MUCONIC ACID MARKET ANALYSIS BY COUNTRIES

- 4.1 North America Muconic Acid Sales Market Share by Countries
- 4.2 North America Muconic Acid Sales by Countries (2012-2017)
- 4.3 North America Muconic Acid Revenue (Value) by Countries (2012-2017)

5 NORTH AMERICA MARKET SEGMENTATION MUCONIC ACID BY TYPE

5.1 North America Muconic Acid Sales, Revenue and Market Share by Type (2012-2017)

5.1.1 North America Muconic Acid Sales and Market Share by Type (2012-2017)

5.1.2 North America Muconic Acid Revenue and Market Share by Type (2012-2017)

- 5.2 Trans, Trans-Muconic Acid Sales Growth and Price
 - 5.2.1 North America Trans, Trans-Muconic Acid Sales Growth (2012-2017)
- 5.2.2 North America Trans, Trans-Muconic Acid Price (2012-2017)
- 5.3 Cis, Cis-Muconic Acid Sales Growth and Price
 - 5.3.1 North America Cis, Cis-Muconic Acid Sales Growth (2012-2017)
- 5.3.2 North America Cis, Cis-Muconic Acid Price (2012-2017)
- 5.4 Cis, Trans-Muconic Acid Sales Growth and Price
- 5.4.1 North America Cis, Trans-Muconic Acid Sales Growth (2012-2017)
- 5.4.2 North America Cis, Trans-Muconic Acid Price (2012-2017)

6 NORTH AMERICA MARKET SEGMENTATION MUCONIC ACID BY APPLICATION

6.1 North America Muconic Acid Sales Market Share by Application (2012-2017)

- 6.2 Adipic Acid Sales Growth (2012-2017)
- 6.3 Scientific Research Sales Growth (2012-2017)
- 6.4 Others Sales Growth (2012-2017)



7 UNITED STATES MUCONIC ACID SALES, REVENUE, BY TYPE, APPLICATION AND MANUFACTURERS

- 7.1 United States Muconic Acid Revenue, Sales and Growth Rate (2012-2017)
- 7.2 United States Muconic Acid Sales and Market Share by Type
- 7.3 United States Muconic Acid Sales by Application (2012-2017)
- 7.4 United States Muconic Acid Sales, Revenue and Market Share by Manufacturer
- 7.4.1 United States Muconic Acid Sales and Market Share by Manufacturer
- 7.4.2 United States Muconic Acid Revenue and Market Share by Manufacturer
- 7.5 United States Muconic Acid Export and Import (2012-2017)

8 CANADA MUCONIC ACID SALES, REVENUE, BY TYPE, APPLICATION AND MANUFACTURERS

- 8.1 Canada Muconic Acid Revenue, Sales and Growth Rate (2012-2017)
- 8.2 Canada Muconic Acid Sales and Market Share by Type
- 8.3 Canada Muconic Acid Sales by Application (2012-2017)
- 8.4 Canada Muconic Acid Sales, Revenue and Market Share by Manufacturer
- 8.4.1 Canada Muconic Acid Sales and Market Share by Manufacturer
- 8.4.2 Canada Muconic Acid Revenue and Market Share by Manufacturer
- 8.5 Canada Muconic Acid Export and Import (2012-2017)

9 MEXICO MUCONIC ACID SALES, REVENUE, BY TYPE, APPLICATION AND MANUFACTURERS

- 9.1 Mexico Muconic Acid Revenue, Sales and Growth Rate (2012-2017)
- 9.2 Mexico Muconic Acid Sales and Market Share by Type
- 9.3 Mexico Muconic Acid Sales by Application (2012-2017)
- 9.4 Mexico Muconic Acid Sales, Revenue and Market Share by Manufacturer
- 9.4.1 Mexico Muconic Acid Sales and Market Share by Manufacturer
- 9.4.2 Mexico Muconic Acid Revenue and Market Share by Manufacturer
- 9.5 Mexico Muconic Acid Export and Import (2012-2017)

10 MUCONIC ACID MARKET FORECAST (2017-2022)

- 10.1 North America Muconic Acid Sales, Revenue and Growth Rate (2017-2022)
- 10.2 Muconic Acid Market Forecast by Countries (2017-2022)
- 10.2.1 United States Muconic Acid Forecast (2017-2022)
- 10.2.2 Canada Muconic Acid Forecast (2017-2022)



- 10.2.3 Mexico Muconic Acid Forecast (2017-2022)
- 10.3 Muconic Acid Market Forecast by Type (2017-2022)
- 10.4 Muconic Acid Market Forecast by Application (2017-2022)

11 MUCONIC ACID MANUFACTURING COST ANALYSIS

- 11.1 Muconic Acid Key Raw Materials Analysis
 - 11.1.1 Key Raw Materials
 - 11.1.2 Price Trend of Key Raw Materials
- 11.1.3 Key Suppliers of Raw Materials
- 11.1.4 Market Concentration Rate of Raw Materials
- 11.2 Proportion of Manufacturing Cost Structure
- 11.2.1 Raw Materials
- 11.2.2 Labor Cost
- 11.2.3 Manufacturing Expenses
- 11.3 Manufacturing Process Analysis of Muconic Acid

12 INDUSTRIAL CHAIN, SOURCING STRATEGY AND DOWNSTREAM BUYERS

- 12.1 Muconic Acid Industrial Chain Analysis
- 12.2 Upstream Raw Materials Sourcing
- 12.3 Raw Materials Sources of Muconic Acid Major Manufacturers in 2016
- 12.4 Downstream Buyers

13 SALES CHANNEL, DISTRIBUTORS, TRADERS AND DEALERS

- 13.1 Sales Channel
 - 13.1.1 Direct Marketing
 - 13.1.2 Indirect Marketing
- 13.1.3 Marketing Channel Future Trend
- 13.2 Distributors, Traders and Dealers

14 RESEARCH FINDINGS AND CONCLUSION

15 APPENDIX

- 15.1 Methodology
- 15.2 Analyst Introduction
- 15.3 Data Source



List Of Tables

LIST OF TABLES AND FIGURES

Figure Muconic Acid Picture Table Product Specifications of Muconic Acid Figure North America Sales Market Share of Muconic Acid by Types in 2016 Table Types of Muconic Acid Figure Trans, Trans-Muconic Acid Picture Table Major Manufacturers of Trans, Trans-Muconic Acid Figure Cis, Cis-Muconic Acid Picture Table Major Manufacturers of Cis, Cis-Muconic Acid Figure Cis, Trans-Muconic Acid Picture Table Major Manufacturers of Cis, Trans-Muconic Acid Table North America Muconic Acid Sales Market Share by Applications in 2016 Table Applications of Muconic Acid Figure Adipic Acid Picture Figure Scientific Research Picture **Figure Others Picture** Figure United States Muconic Acid Revenue (Million USD) and Growth Rate (2012 - 2022)Figure Mexico Muconic Acid Revenue (Million USD) and Growth Rate (2012-2022) Figure Canada Muconic Acid Revenue (Million USD) and Growth Rate (2012-2022) Table Myriant Basic Information, Manufacturing Base and Competitors Table Myriant Muconic Acid Type and Applications Table Myriant Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016 - 2017)Table Amyris Basic Information, Manufacturing Base and Competitors Table Amyris Muconic Acid Type and Applications Table Amyris Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016 - 2017)Table Santa Cruz Biotechnology Basic Information, Manufacturing Base and Competitors Table Santa Cruz Biotechnology Muconic Acid Type and Applications Table Santa Cruz Biotechnology Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017) Table Sigma-Aldrich Corporation Basic Information, Manufacturing Base and Competitors Table Sigma-Aldrich Corporation Muconic Acid Type and Applications



Table Sigma-Aldrich Corporation Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

Table TCI Basic Information, Manufacturing Base and Competitors

Table TCI Muconic Acid Type and Applications

Table TCI Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

Table Toronto Research Chemicals Basic Information, Manufacturing Base and Competitors

Table Toronto Research Chemicals Muconic Acid Type and Applications

Table Toronto Research Chemicals Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

Table Zhongxing Flavors & Fragrance Basic Information, Manufacturing Base and Competitors

 Table Zhongxing Flavors & Fragrance Muconic Acid Type and Applications

Table Zhongxing Flavors & Fragrance Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

Table Alfa Aesar Basic Information, Manufacturing Base and Competitors

Table Alfa Aesar Muconic Acid Type and Applications

Table Alfa Aesar Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

Table Thermo Fisher Scientific Basic Information, Manufacturing Base and Competitors Table Thermo Fisher Scientific Muconic Acid Type and Applications

Table Thermo Fisher Scientific Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

Table Dynacare Basic Information, Manufacturing Base and Competitors

Table Dynacare Muconic Acid Type and Applications

Table Dynacare Muconic Acid Sales, Price, Revenue, Gross Margin and Market Share (2016-2017)

Table North America Muconic Acid Sales by Manufacturer (2016-2017)

Figure North America Muconic Acid Sales Market Share by Manufacturer in 2016

Figure North America Muconic Acid Sales Market Share by Manufacturer in 2017

 Table North America Muconic Acid Revenue by Manufacturer (2016-2017)

Figure North America Muconic Acid Revenue Market Share by Manufacturer in 2016

Figure North America Muconic Acid Revenue Market Share by Manufacturer in 2017

Table North America Muconic Acid Price by Manufacturers (2016-2017)

Figure Top 3 Muconic Acid Manufacturer Market Share in 2016

Figure Top 3 Muconic Acid Manufacturer Market Share in 2017

Figure Top 5 Muconic Acid Manufacturer Market Share in 2016

Figure Top 5 Muconic Acid Manufacturer Market Share in 2017



Figure North America Muconic Acid Sales and Growth (2012-2017) Table North America Muconic Acid Sales by Countries (2012-2017) Table North America Muconic Acid Sales Market Share by Countries (2012-2017) Figure North America 2012 Muconic Acid Sales Market Share by Countries Figure North America 2016 Muconic Acid Sales Market Share by Countries Figure North America Muconic Acid Revenue and Growth (2012-2017) Table North America Muconic Acid Revenue by Countries (2012-2017) Table North America Muconic Acid Revenue Market Share by Countries (2012-2017) Table North America 2012 Muconic Acid Revenue Market Share by Countries Table North America 2016 Muconic Acid Revenue Market Share by Countries Table North America Muconic Acid Sales by Type (2012-2017) Table North America Muconic Acid Sales Share by Type (2012-2017) Table North America Muconic Acid Revenue by Type (2012-2017) Table North America Muconic Acid Revenue Share by Type (2012-2017) Figure North America Trans, Trans-Muconic Acid Sales Growth (2012-2017) Figure North America Trans, Trans-Muconic Acid Price (2012-2017) Figure North America Cis, Cis-Muconic Acid Sales Growth (2012-2017) Figure North America Cis, Cis-Muconic Acid Price (2012-2017) Figure North America Cis, Trans-Muconic Acid Sales Growth (2012-2017) Figure North America Cis, Trans-Muconic Acid Price (2012-2017) Table North America Muconic Acid Sales by Application (2012-2017) Table North America Muconic Acid Sales Share by Application (2012-2017) Figure North America Adipic Acid Sales Growth (2012-2017) Figure North America Scientific Research Sales Growth (2012-2017) Figure North America Others Sales Growth (2012-2017) Figure United States Muconic Acid Revenue and Growth (2012-2017) Figure United States Muconic Acid Sales and Growth (2012-2017) Table United States Muconic Acid Sales by Type (2012-2017) Table United States Muconic Acid Sales Market Share by Type (2012-2017) Table United States Muconic Acid Sales by Application (2012-2017) Table United States Muconic Acid Sales Market Share by Application (2012-2017) Table United States Muconic Acid Sales by Manufacturer (2016-2017) Figure United States Muconic Acid Sales Market Share by Manufacturer in 2016 Figure United States Muconic Acid Sales Market Share by Manufacturer in 2017 Table United States Muconic Acid Revenue by Manufacturer (2016-2017) Figure United States Muconic Acid Revenue Market Share by Manufacturer in 2016 Figure United States Muconic Acid Revenue Market Share by Manufacturer in 2017 Table United States Muconic Acid Export and Import (2012-2017) Figure Canada Muconic Acid Revenue and Growth (2012-2017)



Figure Canada Muconic Acid Sales and Growth (2012-2017) Table Canada Muconic Acid Sales by Type (2012-2017) Table Canada Muconic Acid Sales Market Share by Type (2012-2017) Table Canada Muconic Acid Sales by Application (2012-2017) Table Canada Muconic Acid Sales Market Share by Application (2012-2017) Table Canada Muconic Acid Sales by Manufacturer (2016-2017) Figure Canada Muconic Acid Sales Market Share by Manufacturer in 2016 Figure Canada Muconic Acid Sales Market Share by Manufacturer in 2017 Table Canada Muconic Acid Revenue by Manufacturer (2016-2017) Figure Canada Muconic Acid Revenue Market Share by Manufacturer in 2016 Figure Canada Muconic Acid Revenue Market Share by Manufacturer in 2017 Table Canada Muconic Acid Export and Import (2012-2017) Figure Mexico Muconic Acid Revenue and Growth (2012-2017) Figure Mexico Muconic Acid Sales and Growth (2012-2017) Table Mexico Muconic Acid Sales by Type (2012-2017) Table Mexico Muconic Acid Sales Market Share by Type (2012-2017) Table Mexico Muconic Acid Sales by Application (2012-2017) Table Mexico Muconic Acid Sales Market Share by Application (2012-2017) Table Mexico Muconic Acid Sales by Manufacturer (2016-2017) Figure Mexico Muconic Acid Sales Market Share by Manufacturer in 2016 Figure Mexico Muconic Acid Sales Market Share by Manufacturer in 2017 Table Mexico Muconic Acid Revenue by Manufacturer (2016-2017) Figure Mexico Muconic Acid Revenue Market Share by Manufacturer in 2016 Figure Mexico Muconic Acid Revenue Market Share by Manufacturer in 2017 Table Mexico Muconic Acid Export and Import (2012-2017) Figure North America Muconic Acid Sales, Revenue and Growth Rate (2017-2022) Table North America Muconic Acid Sales Forecast by Countries (2017-2022) Table North America Muconic Acid Market Share Forecast by Countries (2017-2022) Figure United States Muconic Acid Sales Forecast (2017-2022) Figure Canada Muconic Acid Sales Forecast (2017-2022) Figure Mexico Muconic Acid Sales Forecast (2017-2022) Table North America Muconic Acid Sales Forecast by Type (2017-2022) Table North America Muconic Acid Market Share Forecast by Type (2017-2022) Table North America Muconic Acid Sales Forecast by Application (2017-2022) Table North America Muconic Acid Market Share Forecast by Application (2017-2022) Table Sales Base and Market Concentration Rate of Raw Material Figure Price Trend of Key Raw Materials Table Key Suppliers of Raw Materials Figure Manufacturing Cost Structure of Muconic Acid



Figure Manufacturing Process Analysis of Muconic Acid Figure Muconic Acid Industrial Chain Analysis Table Raw Materials Sources of Muconic Acid Major Manufacturers in 2016 Table Major Buyers of Muconic Acid Table Distributors/Traders/ Dealers List



I would like to order

Product name: North America Muconic Acid Market by Manufacturers, Countries, Type and Application, Forecast to 2022

Product link: https://marketpublishers.com/r/N5EE521FBC2EN.html

Price: US\$ 4,480.00 (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 <u>https://marketpublishers.com/r/N5EE521FBC2EN.html</u>

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

Custumer signature _____

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

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



North America Muconic Acid Market by Manufacturers, Countries, Type and Application, Forecast to 2022