

# Global Magnesite Market Professional Survey Report 2016

<https://marketpublishers.com/r/GA6860870A7EN.html>

Date: July 2016

Pages: 117

Price: US\$ 3,500.00 (Single User License)

ID: GA6860870A7EN

## Abstracts

This report studies Magnesite in Global market, especially in North America, Europe, China, Japan, Southeast Asia and India, with production, revenue, consumption, import and export in these regions, from 2011 to 2015, and forecast to 2021.

This report focuses on top manufacturers in global market, with production, price, revenue and market share for each manufacturer, covering

Magnezit

Queensland Magnesia Pty. Ltd.

Grecian Magnesite

Calix

Magnesita

Baymag

Ramakrishna Magnesite Mines

Haicheng Magnesite

Liaoning Jinding Magnesite Group

Houying Group

Haicheng Xiyang Magnesium Ltd.

Liaoning Wancheng Magnesium group

BeiHai Group

By types, the market can be split into

Type I

Type II

Type III

By Application, the market can be split into

Dead-burned Magnesia

Caustic-calcined Magnesia

Fused or Electrofused Magnesia

Others

By Regions, this report covers (we can add the regions/countries as you want)

North America

China

Europe

Southeast Asia

Japan

India

## Contents

### Global Magnesite Market Professional Survey Report 2016

#### **1 INDUSTRY OVERVIEW OF MAGNESITE**

##### 1.1 Definition and Specifications of Magnesite

###### 1.1.1 Definition of Magnesite

###### 1.1.2 Specifications of Magnesite

##### 1.2 Classification of Magnesite

###### 1.2.1 Type I

###### 1.2.2 Type II

###### 1.2.3 Type III

##### 1.3 Applications of Magnesite

###### 1.3.1 Dead-burned Magnesia

###### 1.3.2 Caustic-calcined Magnesia

###### 1.3.3 Fused or Electrofused Magnesia

###### 1.3.4 Others

##### 1.4 Market Segment by Regions

###### 1.4.1 North America

###### 1.4.2 China

###### 1.4.3 Europe

###### 1.4.4 Southeast Asia

###### 1.4.5 Japan

###### 1.4.6 India

#### **2 MANUFACTURING COST STRUCTURE ANALYSIS OF MAGNESITE**

##### 2.1 Raw Material and Suppliers

##### 2.2 Manufacturing Cost Structure Analysis of Magnesite

##### 2.3 Manufacturing Process Analysis of Magnesite

##### 2.4 Industry Chain Structure of Magnesite

#### **3 TECHNICAL DATA AND MANUFACTURING PLANTS ANALYSIS OF MAGNESITE**

##### 3.1 Capacity and Commercial Production Date of Global Magnesite Major Manufacturers in 2015

##### 3.2 Manufacturing Plants Distribution of Global Magnesite Major Manufacturers in 2015

##### 3.3 R&D Status and Technology Source of Global Magnesite Major Manufacturers in

2015

3.4 Raw Materials Sources Analysis of Global Magnesite Major Manufacturers in 2015

## **4 GLOBAL MAGNESITE OVERALL MARKET OVERVIEW**

4.1 2011-2016E Overall Market Analysis

4.2 Capacity Analysis

4.2.1 2011-2016E Global Magnesite Capacity and Growth Rate Analysis

4.2.2 2015 Magnesite Capacity Analysis (Company Segment)

4.3 Sales Analysis

4.3.1 2011-2016E Global Magnesite Sales and Growth Rate Analysis

4.3.2 2015 Magnesite Sales Analysis (Company Segment)

4.4 Sales Price Analysis

4.4.1 2011-2016E Global Magnesite Sales Price

4.4.2 2015 Magnesite Sales Price Analysis (Company Segment)

## **5 MAGNESITE REGIONAL MARKET ANALYSIS**

5.1 North America Magnesite Market Analysis

5.1.1 North America Magnesite Market Overview

5.1.2 North America 2011-2016E Magnesite Local Supply, Import, Export, Local Consumption Analysis

5.1.3 North America 2011-2016E Magnesite Sales Price Analysis

5.1.4 North America 2015 Magnesite Market Share Analysis

5.2 China Magnesite Market Analysis

5.2.1 China Magnesite Market Overview

5.2.2 China 2011-2016E Magnesite Local Supply, Import, Export, Local Consumption Analysis

5.2.3 China 2011-2016E Magnesite Sales Price Analysis

5.2.4 China 2015 Magnesite Market Share Analysis

5.3 Europe Magnesite Market Analysis

5.3.1 Europe Magnesite Market Overview

5.3.2 Europe 2011-2016E Magnesite Local Supply, Import, Export, Local Consumption Analysis

5.3.3 Europe 2011-2016E Magnesite Sales Price Analysis

5.3.4 Europe 2015 Magnesite Market Share Analysis

5.4 Southeast Asia Magnesite Market Analysis

5.4.1 Southeast Asia Magnesite Market Overview

5.4.2 Southeast Asia 2011-2016E Magnesite Local Supply, Import, Export, Local

## Consumption Analysis

5.4.3 Southeast Asia 2011-2016E Magnesite Sales Price Analysis

5.4.4 Southeast Asia 2015 Magnesite Market Share Analysis

## 5.5 Japan Magnesite Market Analysis

5.5.1 Japan Magnesite Market Overview

5.5.2 Japan 2011-2016E Magnesite Local Supply, Import, Export, Local Consumption Analysis

5.5.3 Japan 2011-2016E Magnesite Sales Price Analysis

5.5.4 Japan 2015 Magnesite Market Share Analysis

## 5.6 India Magnesite Market Analysis

5.6.1 India Magnesite Market Overview

5.6.2 India 2011-2016E Magnesite Local Supply, Import, Export, Local Consumption Analysis

5.6.3 India 2011-2016E Magnesite Sales Price Analysis

5.6.4 India 2015 Magnesite Market Share Analysis

## **6 GLOBAL 2011-2016E MAGNESITE SEGMENT MARKET ANALYSIS (BY TYPE)**

6.1 Global 2011-2016E Magnesite Sales by Type

6.2 Different Types of Magnesite Product Interview Price Analysis

6.3 Different Types of Magnesite Product Driving Factors Analysis

6.3.1 Type I Magnesite Growth Driving Factor Analysis

6.3.2 Type II Magnesite Growth Driving Factor Analysis

6.3.3 Type III Magnesite Growth Driving Factor Analysis

## **7 GLOBAL 2011-2016E MAGNESITE SEGMENT MARKET ANALYSIS (BY APPLICATION)**

7.1 Global 2011-2016E Magnesite Consumption by Application

7.2 Different Application of Magnesite Product Interview Price Analysis

7.3 Different Application of Magnesite Product Driving Factors Analysis

7.3.1 Dead-burned Magnesia of Magnesite Growth Driving Factor Analysis

7.3.2 Caustic-calcined Magnesia of Magnesite Growth Driving Factor Analysis

7.3.3 Fused or Electrofused Magnesia of Magnesite Growth Driving Factor Analysis

7.3.4 Others of Magnesite Growth Driving Factor Analysis

## **8 MAJOR MANUFACTURERS ANALYSIS OF MAGNESITE**

8.1 Magnezit

- 8.1.1 Company Profile
- 8.1.2 Product Picture and Specifications
  - 8.1.2.1 Type I
  - 8.1.2.2 Type II
  - 8.1.2.3 Type III
- 8.1.3 Magnezit 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis
- 8.1.4 Magnezit 2015 Magnesite Business Region Distribution Analysis
- 8.2 Queensland Magnesite Pty. Ltd.
  - 8.2.1 Company Profile
  - 8.2.2 Product Picture and Specifications
    - 8.2.2.1 Type I
    - 8.2.2.2 Type II
    - 8.2.2.3 Type III
  - 8.2.3 Queensland Magnesite Pty. Ltd. 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis
  - 8.2.4 Queensland Magnesite Pty. Ltd. 2015 Magnesite Business Region Distribution Analysis
- 8.3 Grecian Magnesite
  - 8.3.1 Company Profile
  - 8.3.2 Product Picture and Specifications
    - 8.3.2.1 Type I
    - 8.3.2.2 Type II
    - 8.3.2.3 Type III
  - 8.3.3 Grecian Magnesite 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis
  - 8.3.4 Grecian Magnesite 2015 Magnesite Business Region Distribution Analysis
- 8.4 Calix
  - 8.4.1 Company Profile
  - 8.4.2 Product Picture and Specifications
    - 8.4.2.1 Type I
    - 8.4.2.2 Type II
    - 8.4.2.3 Type III
  - 8.4.3 Calix 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis
  - 8.4.4 Calix 2015 Magnesite Business Region Distribution Analysis
- 8.5 Magnesita
  - 8.5.1 Company Profile
  - 8.5.2 Product Picture and Specifications
    - 8.5.2.1 Type I

8.5.2.2 Type II

8.5.2.3 Type III

8.5.3 Magnesita 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis

8.5.4 Magnesita 2015 Magnesite Business Region Distribution Analysis

8.6 Baymag

8.6.1 Company Profile

8.6.2 Product Picture and Specifications

8.6.2.1 Type I

8.6.2.2 Type II

8.6.2.3 Type III

8.6.3 Baymag 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis

8.6.4 Baymag 2015 Magnesite Business Region Distribution Analysis

8.7 Ramakrishna Magnesite Mines

8.7.1 Company Profile

8.7.2 Product Picture and Specifications

8.7.2.1 Type I

8.7.2.2 Type II

8.7.2.3 Type III

8.7.3 Ramakrishna Magnesite Mines 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis

8.7.4 Ramakrishna Magnesite Mines 2015 Magnesite Business Region Distribution Analysis

8.8 Haicheng Magnesite

8.8.1 Company Profile

8.8.2 Product Picture and Specifications

8.8.2.1 Type I

8.8.2.2 Type II

8.8.2.3 Type III

8.8.3 Haicheng Magnesite 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis

8.8.4 Haicheng Magnesite 2015 Magnesite Business Region Distribution Analysis

8.9 Liaoning Jinding Magnesite Group

8.9.1 Company Profile

8.9.2 Product Picture and Specifications

8.9.2.1 Type I

8.9.2.2 Type II

8.9.2.3 Type III



8.9.3 Liaoning Jinding Magnesite Group 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis

8.9.4 Liaoning Jinding Magnesite Group 2015 Magnesite Business Region Distribution Analysis

8.10 Houying Group

8.10.1 Company Profile

8.10.2 Product Picture and Specifications

8.10.2.1 Type I

8.10.2.2 Type II

8.10.2.3 Type III

8.10.3 Houying Group 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis

8.10.4 Houying Group 2015 Magnesite Business Region Distribution Analysis

8.11 Haicheng Xiyang Magnesium Ltd.

8.11.1 Company Profile

8.11.2 Product Picture and Specifications

8.11.2.1 Type I

8.11.2.2 Type II

8.11.2.3 Type III

8.11.3 Haicheng Xiyang Magnesium Ltd. 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis

8.11.4 Haicheng Xiyang Magnesium Ltd. 2015 Magnesite Business Region Distribution Analysis

8.12 Liaoning Wancheng Magnesium group

8.12.1 Company Profile

8.12.2 Product Picture and Specifications

8.12.2.1 Type I

8.12.2.2 Type II

8.12.2.3 Type III

8.12.3 Liaoning Wancheng Magnesium group 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis

8.12.4 Liaoning Wancheng Magnesium group 2015 Magnesite Business Region Distribution Analysis

8.13 BeiHai Group

8.13.1 Company Profile

8.13.2 Product Picture and Specifications

8.13.2.1 Type I

8.13.2.2 Type II

8.13.2.3 Type III

8.13.3 BeiHai Group 2015 Magnesite Sales, Ex-factory Price, Revenue, Gross Margin Analysis

8.13.4 BeiHai Group 2015 Magnesite Business Region Distribution Analysis

## **9 DEVELOPMENT TREND OF ANALYSIS OF MAGNESITE MARKET**

9.1 Global Magnesite Market Trend Analysis

9.1.1 Global 2016-2021 Magnesite Market Size (Volume and Value) Forecast

9.1.2 Global 2016-2021 Magnesite Sales Price Forecast

9.2 Magnesite Regional Market Trend

9.2.1 North America 2016-2021 Magnesite Consumption Forecast

9.2.2 China 2016-2021 Magnesite Consumption Forecast

9.2.3 Europe 2016-2021 Magnesite Consumption Forecast

9.2.4 Southeast Asia 2016-2021 Magnesite Consumption Forecast

9.2.5 Japan 2016-2021 Magnesite Consumption Forecast

9.2.6 India 2016-2021 Magnesite Consumption Forecast

9.3 Magnesite Market Trend (Product Type)

9.4 Magnesite Market Trend (Application)

## **10 MAGNESITE MARKETING TYPE ANALYSIS**

10.1 Magnesite Regional Marketing Type Analysis

10.2 Magnesite International Trade Type Analysis

10.3 Traders or Distributors with Contact Information of Magnesite by Regions

10.4 Magnesite Supply Chain Analysis

## **11 CONSUMERS ANALYSIS OF MAGNESITE**

11.1 Consumer 1 Analysis

11.2 Consumer 2 Analysis

11.3 Consumer 3 Analysis

11.4 Consumer 4 Analysis

## **12 CONCLUSION OF THE GLOBAL MAGNESITE MARKET PROFESSIONAL SURVEY REPORT 2016**

## List Of Tables

### LIST OF TABLES AND FIGURES

Figure Picture of Magnesite

Table Product Specifications of Magnesite

Table Classification of Magnesite

Figure Global Production Market Share of Magnesite by Type in 2015

Table Applications of Magnesite

Figure Global Consumption Volume Market Share of Magnesite by Application in 2015

Figure Dead-burned Magnesite Examples

Table Major Consumers of Dead-burned Magnesite

Figure Caustic-calcined Magnesite Examples

Table Major Consumers of Caustic-calcined Magnesite

Figure Fused or Electrofused Magnesite Examples

Table Major Consumers of Fused or Electrofused Magnesite

Figure Others Examples

Table Major Consumers of Others

Figure Market Share of Magnesite by Regions

Figure North America Magnesite Market Size (2011-2021)

Figure China Magnesite Market Size (2011-2021)

Figure Europe Magnesite Market Size (2011-2021)

Figure Southeast Asia Magnesite Market Size (2011-2021)

Figure Japan Magnesite Market Size (2011-2021)

Figure India Magnesite Market Size (2011-2021)

Table Magnesite Raw Material and Suppliers

Table Manufacturing Cost Structure Analysis of Magnesite in 2015

Figure Manufacturing Process Analysis of Magnesite

Figure Industry Chain Structure of Magnesite

Table Capacity (K MT) and Commercial Production Date of Global Magnesite Major Manufacturers in 2015

Table Manufacturing Plants Distribution of Global Magnesite Major Manufacturers in 2015

Table R&D Status and Technology Source of Global Magnesite Major Manufacturers in 2015

Table Raw Materials Sources Analysis of Global Magnesite Major Manufacturers in 2015

Table Global Capacity (K MT), Sales (K MT), Price (USD/MT), Cost (USD/MT), Sales Revenue (M USD) and Gross Margin of Magnesite 2011-2016

Figure Global 2011-2016E Magnesite Market Size (Volume) and Growth Rate  
Figure Global 2011-2016E Magnesite Market Size (Value) and Growth Rate  
Table 2011-2016E Global Magnesite Capacity and Growth Rate  
Table 2015 Global Magnesite Capacity List (Company Segment)  
Table 2011-2016E Global Magnesite Sales and Growth Rate  
Table 2015 Global Magnesite Sales List (Company Segment)  
Table 2011-2016E Global Magnesite Sales Price  
Table 2015 Global Magnesite Sales Price List (Company Segment)  
Figure North America Capacity Overview  
Table North America Supply, Import, Export and Consumption of Magnesite 2011-2016 (K MT)  
Figure North America 2011-2016E Magnesite Sales Price (USD/MT)  
Figure North America 2015 Magnesite Sales Market Share  
Figure China Capacity Overview  
Table China Supply, Import, Export and Consumption of Magnesite 2011-2016 (K MT)  
Figure China 2011-2016E Magnesite Sales Price (USD/MT)  
Figure China 2015 Magnesite Sales Market Share  
Figure Europe Capacity Overview  
Table Europe Supply, Import, Export and Consumption of Magnesite 2011-2016 (K MT)  
Figure Europe 2011-2016E Magnesite Sales Price (USD/MT)  
Figure Europe 2015 Magnesite Sales Market Share  
Figure Southeast Asia Capacity Overview  
Table Southeast Asia Supply, Import, Export and Consumption of Magnesite 2011-2016 (K MT)  
Figure Southeast Asia 2011-2016E Magnesite Sales Price (USD/MT)  
Figure Southeast Asia 2015 Magnesite Sales Market Share  
Figure Japan Capacity Overview  
Table Japan Supply, Import, Export and Consumption of Magnesite 2011-2016 (K MT)  
Figure Japan 2011-2016E Magnesite Sales Price (USD/MT)  
Figure Japan 2015 Magnesite Sales Market Share  
Figure India Capacity Overview  
Table India Supply, Import, Export and Consumption of Magnesite 2011-2016 (K MT)  
Figure India 2011-2016E Magnesite Sales Price (USD/MT)  
Figure India 2015 Magnesite Sales Market Share  
Table Global 2011-2016E Magnesite Sales by Type  
Table Different Types Magnesite Product Interview Price  
Table Global 2011-2016E Magnesite Sales by Application  
Table Different Application Magnesite Product Interview Price  
Table Magnezit Information List

Table Type I Magnesite Overview  
Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Magnezit Magnesite Revenue, Sales, Ex-factory Price  
Figure 2015 Magnezit 2015 Magnesite Business Region Distribution  
Table Queensland Magnesia Pty. Ltd. Information List  
Table Type I Magnesite Overview  
Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Queensland Magnesia Pty. Ltd. Magnesite Revenue, Sales, Ex-factory Price  
Figure 2015 Queensland Magnesia Pty. Ltd. 2015 Magnesite Business Region Distribution  
Table Grecian Magnesite Information List  
Table Type I Magnesite Overview  
Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Grecian Magnesite Magnesite Revenue, Sales, Ex-factory Price  
Figure 2015 Grecian Magnesite 2015 Magnesite Business Region Distribution  
Table Calix Information List  
Table Type I Magnesite Overview  
Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Calix Magnesite Revenue, Sales, Ex-factory Price  
Figure 2015 Calix 2015 Magnesite Business Region Distribution  
Table Magnesita Information List  
Table Type I Magnesite Overview  
Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Magnesita Magnesite Revenue, Sales, Ex-factory Price  
Figure 2015 Magnesita 2015 Magnesite Business Region Distribution  
Table Baymag Information List  
Table Type I Magnesite Overview  
Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Baymag Magnesite Revenue, Sales, Ex-factory Price  
Figure 2015 Baymag 2015 Magnesite Business Region Distribution  
Table Ramakrishna Magnesite Mines Information List  
Table Type I Magnesite Overview

Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Ramakrishna Magnesite Mines Magnesite Revenue, Sales, Ex-factory Price  
Figure 2015 Ramakrishna Magnesite Mines 2015 Magnesite Business Region  
Distribution  
Table Haicheng Magnesite Information List  
Table Type I Magnesite Overview  
Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Haicheng Magnesite Magnesite Revenue, Sales, Ex-factory Price  
Figure 2015 Haicheng Magnesite 2015 Magnesite Business Region Distribution  
Table Liaoning Jinding Magnesite Group Information List  
Table Type I Magnesite Overview  
Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Liaoning Jinding Magnesite Group Magnesite Revenue, Sales, Ex-factory  
Price  
Figure 2015 Liaoning Jinding Magnesite Group 2015 Magnesite Business Region  
Distribution  
Table Houying Group Information List  
Table Type I Magnesite Overview  
Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Houying Group Magnesite Revenue, Sales, Ex-factory Price  
Figure 2015 Houying Group 2015 Magnesite Business Region Distribution  
Table Haicheng Xiyang Magnesium Ltd. Information List  
Table Type I Magnesite Overview  
Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Haicheng Xiyang Magnesium Ltd. Magnesite Revenue, Sales, Ex-factory  
Price  
Figure 2015 Haicheng Xiyang Magnesium Ltd. 2015 Magnesite Business Region  
Distribution  
Table Liaoning Wancheng Magnesium group Information List  
Table Type I Magnesite Overview  
Table Type II Magnesite Overview  
Table Type III Magnesite Overview  
Table 2015 Liaoning Wancheng Magnesium group Magnesite Revenue, Sales, Ex-  
factory Price

Figure 2015 Liaoning Wancheng Magnesium group 2015 Magnesite Business Region Distribution

Table BeiHai Group Information List

Table Type I Magnesite Overview

Table Type II Magnesite Overview

Table Type III Magnesite Overview

Table 2015 BeiHai Group Magnesite Revenue, Sales, Ex-factory Price

Figure 2015 BeiHai Group 2015 Magnesite Business Region Distribution

Figure Global 2016-2021 Magnesite Market Size (Volume) and Growth Rate Forecast

Figure Global 2016-2021 Magnesite Market Size (Value) and Growth Rate Forecast

Figure Global 2016-2021 Magnesite Sales Price (USD/MT) Forecast

Figure North America 2016-2021 Magnesite Consumption Volume and Growth Rate Forecast

Figure China 2016-2021 Magnesite Consumption Volume and Growth Rate Forecast

Figure Europe 2016-2021 Magnesite Consumption Volume and Growth Rate Forecast

Figure Southeast Asia 2016-2021 Magnesite Consumption Volume and Growth Rate Forecast

Figure Japan 2016-2021 Magnesite Consumption Volume and Growth Rate Forecast

Figure India 2016-2021 Magnesite Consumption Volume and Growth Rate Forecast

Table Global Sales Volume (K MT) of Magnesite by Types 2016-2021

Table Global Consumption Volume (K MT) of Magnesite by Applications 2016-2021

Table Traders or Distributors with Contact Information of Magnesite by Regions

Table Part of Interviewees Record List

## I would like to order

Product name: Global Magnesite Market Professional Survey Report 2016

Product link: <https://marketpublishers.com/r/GA6860870A7EN.html>

Price: US\$ 3,500.00 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/GA6860870A7EN.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