

# Global and China MO Source Industry Report, 2019-2025

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#### **STUDY GOAL AND OBJECTIVES**

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

#### **REPORT OBJECTIVES**

- To establish a comprehensive, factual, annually updated and costeffective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- To help company to succeed in a competitive market, and

#### **METHODOLOGY**

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

#### **INFORMATION SOURCES**

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

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# Abstract

MO source is a key raw material for metal-organic chemical vapor deposition (MOCVD) process. Global MO source output ranged at 102.6 tons in 2018, a rise of roughly 4.6% from a year earlier, a figure projected to outnumber 150 tons in 2025. China as the world's largest producer of MO source manufactured 44.3 tons or over 40% of the global total in 2018.

MO source industry during 2018-2019 is featured as follows:

**Demand**: the incremental market demand for MO source is on the wane as LED gets increasingly prevalent; the China-US trade tension which hurts LED industry (over 80% MO source gets used), led to the slowing of global and Chinese demand for MO source in 2018. China demanded approximately 36.9 tons of MO source in 2018, up by 5.1% from the year before, and a year-on-year decrease of 9.2 percentage points.

LED's demand for MO source will continue to rise in the near future along with the burgeoning markets such as micro LED display, mini LED backlighting, UV-C LED, automotive lighting, and LED lighting with high luminous efficacy. Yet, the wider application of MO source in solar cells, semiconductor lasers and so forth will tend to drag down the demand from LED field.

**Price**: trimethyl gallium currently consumes a whopping 80% of MO source in the Chinese market so that MO source price is to a great extent affected by gallium metal price. The pickup in gallium metal price from less than RMB1,000/kg in 2017 to RMB1,500/kg in 2018 pushed up trimethyl gallium price to around RMB8,600/kg in 2018.

**Competitive landscape**: As a kind of strategic materials, the MO source market is highly concentrated and firmly held by Chinese, South Korean, American, European and Japanese manufacturers. In the past two years, mergers and acquisitions among global MO source manufacturers occured frequently, such as the merger of Dow and DuPont, the acquisition of Akzo Nobel by Carlyle, and the acquisition of Chemtura by LANXESS.

Global MO source market was an oligopoly in 2018, with the CR5 being above 85%, of which Nata Opto-electronic occupied the first place with a market share of over 20%.

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The report highlights the following:

- ◆Definition, classification, industry chain, industry characteristics, etc. of MO source;
- Overview, supply, demand, market structure, etc. of global MO source;
- Development environment, supply, demand, competitive landscape, market price, etc. of China's MO source industry;

◆Market size and prices of MO source upstream sectors (gallium, indium, etc.); market size, competitive landscape, etc. of downstream sectors (LED, solar cells, semiconductor lasers, etc.);

♦ Operation, MO source business, etc. of 7 foreign and 5 Chinese MO source producers.

### Competitive Landscape of Global MO Source Market, 2018



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