Food-approved Emulsifiers

Supply/Demand/Forecasts in Food, Feed & Non-food sectors

Overview of global markets

In-Depth analysis of China, India, Indonesia, Thailand

2012 – 2017

INTRODUCTION

Mono- and di-glycerides, their derivatives and lecithin continue to dominate food and feed emulsifier markets whilst non-food sectors use a wide variety of products, including surfactants. There have been several attempts by the emulsifier industry to add value by marketing such products as sucrose esters, new types of polyglycerol esters, lecithin-replacers. In addition, various emulsifier/stabiliser blends in the food and cosmetic sectors have added momentum to this market. The key concern in the Asian market continues to be price. USA, Europe and Japan continue to focus on functionality and added value.

Giract has already published successful market studies covering the various food-approved emulsifiers in 1996 and 2001 and more recently in 2006; the current project provides the most up-to-date information on the dynamic emulsifier sector. Following the significant increase in the Asian food markets in the recent years, Giract carried out the current study in 4 key Asian markets. An overview of demand for key emulsifiers DMG, MDG and DMG esters in Europe, USA, Japan and RoW is provided as a global demand perspective for emulsifier manufacturers.

As a key player or a company wishing to learn more about these important ingredients, this study serves a dual purpose for you – to help explore and exploit these high-profile markets and to make full use of an in-depth understanding of the market forces to develop your overall business in this sector

OBJECTIVES

- To provide current global overview of market volume by region for DMG, MDG and DMG esters
- To study in-depth the 4 high growth markets of China, India, Indonesia and Thailand:
  - To quantify current market volume & value by country & forecast volume for 2017
  - To analyse the producers, their strategies and estimated production
  - To obtain an appreciation of "why" and "why not" concerning the use of various emulsifiers based on in-depth interviews with users
- To provide a supply review of Malaysia

PRODUCTS

Major emulsifiers: 1. Lecithin/ammonium phosphatides 2. MDG and DMG

Minor emulsifiers: 1. DMG esters (Datem, etc.). 2. Polyglycerol/Propylene glycol esters 3. Stearoyl lactylates (CSL/SSL) 4. Sorbitan esters/polysorbates 5. Sucrose esters and sucroglycerides

SECTORS

Food (bakery, chocolate, margarine, etc.); Feed; Non-food (detergents, cosmetics, etc.)

GEOGRAPHICAL

Supply/Demand – China, India, Indonesia, Thailand
Supply only – Malaysia
Global Overview of Demand – USA, Europe, Japan, Rest of World (DMG, MDG, DMG esters)

TIMESCALE

2012 – 2017

PUBLICATION

February 2013

COMPETENCE

Relevant multi-client studies published earlier include Food-approved Emulsifiers (1996, 2001 and 2006), China Emulsifier Supplier Directory (2005). In addition, several individual studies have examined both emulsifiers and the end-product sectors.

For more info, contact GIRACT
24, Pré Colomb
1290 Versoix/Geneva
Switzerland

V. Krishnakumar, Russell Ward or R. Badrinath
Tel: + 41 22 779 0500
Fax: + 41 22 779 0505
info@giract.com
www.giract.com

Food-approved Emulsifiers in Asia
Supply/Demand/Forecasts in Food, Feed & Non-food sectors
2012 - 2017

MULTICLIENT REPORT

January 2013

GIRACT

Website:	www.giract.com
Email:	info@giract.com

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1. EXECUTIVE SUMMARY

1.1. OVERVIEW

1.1.1. INTRODUCTION

Mono- and di-glycerides, their derivatives and lecithin continue to dominate food and feed emulsifier markets whilst non-food sectors use a wide variety of products. However, the emulsifier sector is currently witnessing changes, particularly on the supply side due to capacity expansion in China (and some in India) and proposed expansion of capacity in Malaysia. A large quantity of this production is destined for exports, with some penetration expected within the countries studied in this report. While the development of emulsifier/stabiliser blends in the food and cosmetic sectors has added momentum to this market, penetration is still slow. GMO and BSE issues, which are important in the USA and Europe are non-existent in Asia. On the other hand, halal certification is gaining importance. While environmental protection is the major issue for many palm oil derived products, emulsifier manufacturers in Malaysia have made the effort to source sustainable palm oil and are members of the Roundtable on Sustainable Palm Oil (RSPO).

It is in the light of this dynamic that Giract has carried out this study, exploring the dynamics in 2012, and estimating forecasts to 2017.

1.1.2. OBJECTIVES

- To obtain an appreciation of "why" and "why not" concerning the use of various emulsifiers based on in-depth interviews with users
- To quantify current market volume and value by region and by sector and forecast volume for 2017
- To estimate trade flows
- To analyse the producers, their strategies and estimated production
- To review relevant legislation by product/region

1.1.3. SCOPE

1.1.3.1 GEOGRAPHICAL

Supply/demand: China, India, Indonesia, Thailand

Supply only: Malaysia

1.1.3.2 PRODUCTS

Major emulsifiers:

- Lecithin
- MDG and DMG

Minor emulsifiers:

- Datem, Other DMG esters (Citrem, etc.)
- Polyglycerol esters, Propylene glycol esters
- Stearoyl lactylates (CSL/SSL)
- Sorbitan esters / polysorbates
- Sucrose esters and sucroglycerides

1.1.3.3 END USE MARKETS

- Bakery (bread)
- Bakery (non-bread)
- Confectionery (chocolate and sugar (including chewing gum))
- Ice cream
- Margarine and spreads
- Other food
- Animal feed
- Personal care, cosmetics, pharma
- Industrial

1.2. METHODOLOGY

1.2.1. DATA COLLECTION AND PROCESSING

After utilising Giract's extensive in-house database – including its publications ChinaNews and IndiaNews – other available information was collected from public sector databases. The latter sources included industry publications, government sources for legislation and trade data (largely for lecithin) and websites of players. This was distilled into a coherent picture to enhance Giract's emulsifier market understanding.

In parallel, interviews were conducted with suppliers, user companies and independent experts to validate this information, to identify and rectify inconsistencies and to identify trends and points of change.

The individual emulsifier modules could then be constructed for the present market and pointers identified as drivers for change.

1.2.2. FORECASTING

The forecasting process looked first at the historical development of demand for each emulsifier by market sector – largely from Giract's own database.

The rates of past change and Giract's future forecasts for the end use markets were then considered and a composite growth rate established for each emulsifier in each segment. This was modified further to reflect judgemental effects where displacement of one emulsifier by another (or even elimination of an emulsifier by an alternative technical solution (such as enzymes) were anticipated. Equally, industrialisation of the end product sector was considered to have a positive influence on emulsifier consumption.

Finally, this rate was adjusted by a weighting factor to reflect the overall market growth.

1.3. MARKET DRIVERS

1.3.1. CHINA

Chinese emulsifier use is driven by the following main factors:

- GDP growing, especially in the South and East

##

1.3.2. INDIA

The main market drivers in India are:

- Rapid population growth
- ##

1.3.3. THAILAND

In Thailand the main drivers are:

- ##

1.3.4. INDONESIA

In Indonesia the main drivers are:

- ##

1.3.5. MALAYSIA

The main drivers for production increase in Malaysia are:

- ##

1.4. TOTAL SUPPLY/DEMAND

1.4.1. KEY PRODUCERS 2012

Most multinational companies which are in the business of food ingredients, operate in the countries covered in this study. The top 20 companies in terms of production capacity (irrespective of type of emulsifier) are:

Company	Production capacity (kt)
Guangzhou Kevin Food Co., Ltd.	##
Sinograin Oils & Fats Industrial (Tianjin) Co., Ltd.	##
Total	##

Of a total estimated ##kt, the top 20 companies contribute to ##% of the production. This is evidence of a highly fragmented production base. Most of these companies are based out of China.

1.4.2. CURRENT DEMAND BY EMULSIFIER AND COUNTRY

kt

Emulsifier type	China	India	Thailand	Indonesia	Emulsifier type total
Lecithin					
DMG/MDG					
DMG esters					
Polyglycerol/Propylene glycol esters					
CSL/SSL					
Sorbitan esters/Polysorbates					
Sucrose esters/Sucroglycerides					
Country Total					

Some significant regional bias may be observed. The impression that India might be a large consumer of emulsifiers given the size of its population and potential is countered; Thailand and Indonesia have a greater consumption of emulsifiers due to the larger size of the organised packaged food industry there.

1.4.3. CURRENT MARKET BY SECTOR AND EMULSIFIER TYPE

Sector	Lecithin	DMG/ MDG	DMG esters	Polyglycerol esters	CSL/ SSL	Sorbitan esters	Sucrose esters	Sector total
Confectionery, chocolate								
Margarine & spreads								
Bakery, bread								
Bakery, other								
Ice cream, desserts								
Baby foods								
Food, other								
Animal feed								
Personal care, cosmetics								
Industrial uses								
Total								

1.5. OVERVIEW OF THE GLOBAL DMG MARKET

1.5.1. KEY PRODUCERS 2012

Region	Production capacity (kt)
USA	
Europe	
Japan	
China	
Rest of Asia	
Rest of World	
Total	

1.5.2. CURRENT MARKET BY SECTOR AND REGION

kt

Sector	USA	Europe	Japan	China	Rest of Asia	Rest of World
Bakery, bread						
Bakery, other						
Confectionery, chocolate						
Margarine & spreads						
Ice cream, desserts						
Baby foods						
Food, other						
Animal feed						
Personal care, cosmetics, pharma						
Industrial uses						
Total						

1.6. OVERVIEW OF THE GLOBAL MDG MARKET

1.6.1. KEY PRODUCERS 2012

Region	Production capacity (kt)
USA	
Europe	
Japan	
China	
Rest of Asia	
Rest of World	
Total	

1.6.2. CURRENT MARKET BY SECTOR AND REGION

kt

Sector	USA	Europe	Japan	China	Rest of Asia	Rest of World
Bakery, bread						
Bakery, other						
Confectionery, chocolate						
Margarine & spreads						
Ice cream, desserts						
Baby foods						
Food, other						
Animal feed						
Personal care, cosmetics, pharma						
Industrial uses						
Total						

1.7. OVERVIEW OF THE GLOBAL DMG ESTERS MARKET

1.7.1. KEY PRODUCERS 2012

Region	Production capacity (kt)
USA	
Europe	
Japan	
China	
Rest of Asia	
Rest of World	
Total	

1.7.2. CURRENT MARKET BY SECTOR AND REGION

kt

Sector	USA	Europe	Japan	China	Rest of Asia	Rest of World
Bakery, bread						
Bakery, other						
Confectionery, chocolate						
Margarine & spreads						
Ice cream, desserts						
Baby foods						
Food, other						
Animal feed						
Personal care, cosmetics, pharma						
Industrial uses						
Total						

1.8. CONCLUSIONS

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