This section contains certain information and statistics concerning the global and PRC thenardite industry. We have derived the information and data partly from the Behre Dolbear Report and the Independent Technical Review Report. While our Company, the Joint Sponsors, the Underwriters and other parties involved in the Global Offering have taken reasonable care in the extraction, compilation and reproduction of information and statistics from these sources, none of our Company, the Joint Sponsors, the Underwriters or any other parties involved in the Global Offering has independently verified the information and statistics derived directly or indirectly from official government sources or made any representation as to their accuracy. Such information and statistics may be out-of-date and may not be consistent with other information and statistics compiled within or outside China. You should not place undue reliance on such information and statistics contained in this section.

ABOUT BEHRE DOLBEAR

We commissioned Behre Dolbear, an Independent Third Party, to provide a market research report for the thenardite industry. Behre Dolbear is a mineral industry consulting firm. Since 1911, Behre Dolbear has specialized in studies for commercial and multi-national financial institutions, mining companies, governments and governmental agencies, legal firms, and other parties with interests in the mineral industry. Behre Dolbear covers technical, operational and financial issues in a broad range of commodities including base and precious metals, coal, industrial minerals, diamonds and gemstones, ferrous metals, and construction materials. In conducting its market research, Behre Dolbear collected and reviewed publicly available data such as government-derived information, annual reports of companies in the thenardite industry, reference books, and articles published in industrial minerals and chemical journals. Behre Dolbear has exercised due care in collecting and reviewing the information so collected and believes that the basic assumptions are factual and correct and the interpretations are reasonable. Behre Dolbear has independently analyzed the information, but the accuracy of the conclusions of its review largely relies on the accuracy of the information collected. Future thenardite consumption and demand projected by Behre Dolbear in this section are based on recent historic information while taking into consideration any substantial economic, market and/or technical changes which might affect the thenardite industry. Information and statistics in this section are sourced from the Behre Dolbear Report unless otherwise expressly specified.

The total fee for the Behre Dolbear Report was US\$84,250.

INTRODUCTION TO THENARDITE

Thenardite (Na_2SO_4) is an edible, water-soluble, white, crystalline, hygroscopic mineral powder. Thenardite is an important raw material used in chemical and light industries and is used extensively in the manufacture of powder detergents, textiles, glass, kraft pulp, chemical feedstock and pharmaceutical products.

Thenardite is classified by its purity, color, density, pH content, neutrality and inclusion of other minerals. It can be processed into different forms to cater for a variety of end-use requirements and applications.

Thenardite can be produced from either natural minerals (mineral production) or as a chemical by-product (synthetic production). Non-marine evaporates are used to produce thenardite. Glauberite $(Na_2SO_4 \cdot CaSO_4)$ is one of the more abundant non-marine evaporates in China. Glauberite appears in solid form in arid regions as a salty precipitate. Glauberite is highly soluble and when mixed with water transforms into mirabilite $(Na_2SO_4 \cdot 10H_2O)$. Mirabilite is an aqueous mixture that is then dehydrated and processed into thenardite, which is the term used for the solid Na_2SO_4 product with above 98% sodium sulfate purity. Natural thenardite products tend to be of higher purity than those that are produced as synthetic by-products.

GLOBAL THENARDITE INDUSTRY

Glauberite Reserves

Global glauberite reserves are estimated to be approximately 35.3 billion tonnes and sufficient to meet demand well into the future at the present consumption rate. China, the United States, Canada, Mexico, Spain and Turkey are the countries with the largest glauberite reserves. Glauberite reserves are concentrated in these countries and other countries need to rely on imports to meet their domestic thenardite demand. The following table sets forth the top natural thenardite producing countries in the world along with their reserves and resource bases as of December 31, 2008:

MAJOR THENARDITE PRODUCING COUNTRIES	ANNUAL NATURAL THENARDITE OUTPUT (tpa)	ANNUAL SYNTHETIC THENARDITE OUTPUT (tpa)	RESERVES ⁽¹⁾ (tonnes)	RESOURCES ⁽¹⁾ (tonnes)	
China	9.1 million	1.0 million	10,500 million	30,000 million	
United States	0.3 million	0.3 million	860 million	1,400 million	
Canada	0.3 million		<1 million	270 million	
Mexico	0.6 million		350 million	230 million	
Spain	1.0 million	<0.1 million	180 million	3,300 million	
Turkey	0.3 million	_	100 million	100 million	

Source: Behre Dolbear Note:

(1) As the data collected by Behre Dolbear are from various sources including government-derived information, annual reports of companies in the thenardite industry, reference books and articles published in industrial minerals and chemical journals, the words "reserves" and "resources" used in this chart are generalizations and are not intended to be in strict conformity with specific international codes and/or categorization systems and/or usages to which such terms are customarily applied.

China is by far the biggest thenardite producer in the world and has the most extensive glauberite resource base. The reserve in China alone is approximately 10.5 billion tonnes.

Thenardite Production

Natural Thenardite

Natural thenardite is mined and produced in a variety of ways, including room-and-pillar mining, in situ leaching of thick ore beds, solution mining, solar evaporation and cooling-crystallization of lake brine, and pumping of brine from complex salt deposits. Some mining methods are more costly than others.

By-product or synthetic thenardite is produced during various manufacturing processes, including chromium chemical production, rayon spinning, hydrochloric acid production, iodine/nitrate processing, resorcinol production, ascorbic acid production, and many others. Global synthetic thenardite production capacity is estimated to be approximately 1.3 million tpa with approximately 1.0 million tpa attributable to China.

The following table summarizes the major natural thenardite producers around the world along with their respective base production capacity as of December 31, 2008:

Country	Major Producers	Base Production Capacity (tonnes per annum)
China ⁽¹⁾	Nafine Group International Co., Ltd.	1,650,000
	Lumena Resources Corp.	1,600,000
	Xinli Chemical Co., Ltd.	1,400,000
Mexico	Penoles — Quimica del Rey	620,000
Spain	CRIMIDESA SA	500,000
	Minera de Santa Marta SA	240,000
	FMC Foret SA	>200,000
	Sulquisa SA	>200,000
United States	Searles Valley Minerals	>300,000
	Cooper Natural Resources	145,000
Turkey	Alkim AS	>300,000
Canada	Saskatchewan Minerals	150,000
	Millar Western (recently acquired by Zeox)	100,000

Source: Behre Dolbear Note:

Synthetic Thenardite

Synthetic thenardite production is dependent on the primary chemical process from which it is produced as a by-product. Synthetic thenardite availability is thus entirely dependent on the thenardite yield of the primary chemical process. Demand for the primary product varies depending on its specific market. Primary product demands are not driven by the supply and demand consideration for thenardite. If demand for a primary chemical product suddenly increases or decreases, then there would be a related change in the production of synthetic thenardite byproduct.

As thenardite is generally fungible, consumers will not differentiate between natural and synthetic thenardite unless strict chemical and physical specifications are needed. The production cost of synthetic thenardite is typically low, sometimes minimal, because it is a function of the primary chemical process.

Thenardite Demand

Global natural thenardite demand has historically been strong in Asia and certain other parts of the world and has increased at a CAGR of 7.9% between 2004 and 2007. Due to the recent global economic crisis, it is anticipated that the growth of natural thenardite demand will slow down and maintain at a CAGR of 2.5% between 2008 and 2010. Demand for natural thenardite among western countries has been stagnant or declining continuously over the past decade due to the stabilization or decline of certain thenardite consuming industries in these regions. Chinese natural thenardite demand growth is projected to increase from approximately 6.5 million tonnes in 2008 to approximately 6.8 million tonnes in 2010, representing a CAGR of 2.5%. A rebound is expected in 2010 at the earliest.

⁽¹⁾ China has over 12.1 million tpa of natural thenardite production capacity. The companies listed are the three largest reported thenardite producers in China.

The table below sets forth natural thenardite consumption volume of some areas or countries for the periods indicated:

	Natural Thenardite Consumption Volume for Year Ended (million tonnes)					
Region	2004A	2005A	2006A	2007A	2008E	(%)
China	4.7	5.3	5.6	6.0	6.5	8.3
Asia (excluding China)	2.3	2.7	3.1	3.5	3.7	12.4
Europe	1.7	1.7	1.7	1.7	1.7	0.7
United States	0.4	0.2	0.2	0.3	0.3	(8.0)
Canada	0.1	0.1	0.1	0.1	0.1	0
Mexico	0.5	0.6	0.6	0.6	0.6	4.7
Latin America (excluding Mexico)	0.3	0.3	0.3	0.4	0.4	8.0
Total	10.0	10.9	11.6	12.6	13.3	7.5

Source: Behre Dolbear

Natural thenardite demand in developed markets, such as the United States, Canada and Europe, is stagnant or declining and these markets are best served by well-established local thenardite producers. However, thenardite demand is expected to increase slightly in the next few years in Asia, South America and certain other emerging markets in the Middle East and African countries as industrial production moves to these regions. As these regions become increasingly industrialized and as their respective economies expand, thenardite demand will increase.

Thenardite products have been traditionally consumed by light and chemical industries. These traditional downstream industries will remain the main sources of demand for thenardite.

The specific demand breakdown by industry application is as follows:

Detergents

Thenardite is used in powder laundry and dishwasher detergents as a processing aid and can constitute as much as 60.0% of the powder. Powder detergents account for approximately 40.0% of the overall demand for thenardite and have traditionally been, and remain, the largest market for thenardite throughout the world. Overall, the market is saturated with detergent products and thenardite consumption by detergent industry can vary according to the formulation trends of detergent producers. Thenardite is a beneficial additive because it is very white, non-corrosive and pH neutral. For powder detergent, thenardite is the most suitable inert filler and there are no effective substitutes for thenardite. Powder detergent, however, can be substituted by liquid detergent, which uses no thenardite.

Demand for detergents in the developing countries of Asia, South America, and the Middle East is growing and is expected to remain strong as more consumers start to use washing machines. In Mexico, demand is strong as more and more people use washing machines and buy thenardite based detergents. In the mature markets of the United States, Canada and Europe, demand is expected to remain flat and possibly diminish in the short term. With the current worldwide economic downturn, growth projections have been severely curtailed. A rebound is expected in 2010 at the earliest.

Textiles

In the textile industry, thenardite is used in the dyeing process for textile fibres. Thenardite is added to textile dye baths to drive the dye from the solution onto the textile fibres. The dyeing process continues until the desired shade is obtained and the rate of dye absorption is governed by the rate of thenardite addition. Most dye

processes are pH and zinc sensitive, requiring thenardite with pH ranging from 6.5 to 8.0 and with minimal amounts of zinc. Unlike competing products such as sodium chloride, thenardite does not corrode the stainless steel vessels used in the dyeing process. Since stainless steel vessels are dominant in the processing systems, this is a significant consideration for the textile industry. Most dye machine manufacturers warrant their equipment, specifying the use of sodium sulfate instead of sodium chloride. Using sodium chloride can void manufacturers' warranties. As long as manufacturers of textile producing equipment continue to use stainless steel in their equipment, sodium sulfate will most likely remain the industry choice. If equipment types and materials change in the future, then it is possible that sodium chloride or some other commodity might be used in the textile dyeing process. As a result of the foregoing, there is a relatively small risk of substitution in the foreseeable future. Demand for thenardite in the textile industry in the United States and Western Europe is declining due to textile manufacturers relocating to regions with lower labor costs such as China, the rest of Asia and Africa. As a result, it is expected that the increased demand from textile operations will result in rising thenardite consumption rates in these regions. With the current economic downturn, growth projections have been severely curtailed. A rebound is expected in 2010 at the earliest.

Glass

Thenardite helps remove small air bubbles in molten glass and prevents scum formation on the surface of the molten glass in the refining stage. Most thenardite consumed in the glass industry is used in the production of flat glass. Glass grade thenardite requires low iron content and a minimum Na_2SO_4 purity of 99.3-99.7%, as the glass industry has strict limits on iron, copper and noble metal levels in the product. Thenardite is the most effective substance for this application and there is a relatively small risk of significant substitution by other products in this area. Although sodium ash and calcium sulfate have been used to replace thenardite, they produce less effective results. The glass industry and consequent consumption of thenardite are strongly impacted by fluctuations in the construction and automobile industries. In addition, demand for thenardite is also affected by the rate of glass recycling.

New construction in the United States housing market is currently in a severe depression. Automobile manufacturing has been declining in North America and no additional consumption is expected in this sector. As a result, thenardite demand by the glass industry in the near term is expected to decrease. The auto sales in China, however, have been increasing, albeit at a slower rate, resulting in sustained consumption of thenardite for this application. The glass industry in Western Europe has been steady and is expected to remain so in the near future.

Paper and Pulp

At the beginning of the 1980s, the manufacture of Kraft paper was the principal use of thenardite, although such use has now declined. Kraft paper is the heavy, brown paper found in cardboard and grocery bags. In the manufacturing process for Kraft paper pulp, thenardite is reduced chemically to sulfide forms, which are the active constituents of pulping liquor. In the past, demand for natural thenardite decreased due to the increasing supply of synthetic thenardite from the production process of chlorine dioxide, which is also used as a bleaching agent in the pulp and paper industry. However, due to environmental concerns about the use of chlorine based bleaching compounds, the demand for natural thenardite is expected to increase slightly in the next three years.

Emulsified sulfur and caustic soda (sodium hydroxide) are also readily used in this market as a substitute for thenardite. Due to recent closures of some Canadian Kraft plants, production has increased in the United States Kraft companies. If energy costs increase in China there will be less plastic imports from China and more Kraft bag demand for packaging in the United States.

Production of Kraft pulp has been increasing slightly in the past few years. Some new Kraft mills have opened in Germany recently. The overall market is not very big and changes in consumption in this area are not seen as a significant factor for global thenardite consumption.

Food and Medical

Thenardite is used as an ingredient in various stock foods and medicines because of its mild laxative properties and anti-inflammatory properties. Thenardite is also used in food dyes as a flavor enhancer in beverages, Kroger Brand baking sodas and lotions such as Aquacare and Aspercreme. Medical thenardite is especially popular in China where it is used as a mild laxative and for control of inflammatory. Medical thenardite requires a minimum Na_2SO_4 purity of 99.0%. Quality control standards for production of both food and medicinal grade products are high. Manufacturing is typically certified, regulated and closely monitored by government agencies. Companies that can meet the manufacturing standards and acquire the appropriate certifications face no barriers to entry for the food or medical markets and can typically take advantage of the value added prices as a result.

Other Uses

Other uses of thenardite include the manufacture of carpet fresheners, starch, ceramics, printing inks, sulfonated oils, synthetic sponges and veterinary medicines. Thenardite is also used in the production processes of chemical feed stocks. Consumption in these applications is relatively small and is not expected to grow substantially.

New Applications

Thenardite has been used experimentally in the treatment of coal to decrease maintenance costs for coalfired power plants. As China and the United States are the largest consumers of coal, if thenardite is commonly adopted as a coal-treatment application, demand for thenardite could increase as a result.

In the United States, thenardite has also been tested as an additive to quick-dry cement, with some success. However, the evaluation of new cement additives usually requires extensive testing periods, particularly in cold environments, before new products are certified for use. Hence there has been no significant consumption for this application to date.

End Product Customization

Regular thenardite products could be further customized in packaging and sizing to meet the needs for various markets. For example, the detergent industry requires not only common white thenardite, but also more effective large-granule thenardite. Color-particle thenardite is also of growing popularity among certain consumers. Other customization includes pH modification and addition of calcium and other minerals for special applications. These customized products can command higher average selling prices due to their improved chemical and physical features.

Competition and Pricing

China will be the major producer and supplier of thenardite in the Asian and South American markets in the foreseeable future, as no other producing country in the world has the capacity, production cost structure or transportation advantages to compete in these markets. Outside of China, CRIMIDESA and Minera de Santa Marta, SA in Spain, Searles Valley Minerals and Copper Natural Resources in the United States, Quimica del Rey SA de CV in Mexico, Alkim AS in Turkey, Saskatchewan Mineral and Millar Western Industries in Canada are the major international thenardite producers, most of which primarily serve their local markets.

Overall, natural thenardite is purer than synthetic thenardite. The production of synthetic thenardite, as a secondary by-product, is dependent on certain other primary chemical production processes. As a by-product, the production cost of synthetic thenardite is typically low, sometimes minimal. If there is a transportation advantage and synthetic thenardite is sufficient to meet specific end-use requirements, it will typically be used. Nevertheless, synthetic thenardite output is generally steady, it should not impact the natural thenardite market any more than it already has.

The traditional markets for thenardite, such as laundry detergents, textiles, glass and paper and pulp, are mature markets. Competition in these markets is primarily based on price. Therefore, customers seek the most cost effective and reliable thenardite supplier.

Thenardite products are not traded on any exchange, therefore no terminal or futures market exists for thenardite products where producers, consumers and traders can fix an official or settlement price.

Thenardite pricing is driven by the industry supply and demand dynamics, uniqueness of product specifications and production and transportation costs. Prices vary depending on the grade and packaging costs. Overall, the global average selling price for thenardite has been stable since 2005.

Global Market Forecast

Overall, the growth of thenardite consumption is historically strong in certain parts of the world. Due to the recent global economic crisis, however, the growth of demands for detergent, textiles and glass are expected to slow down in China, the rest of Asia and South America in the next two years which may result in only a modest growth of thenardite consumption in these regions. The long-term market for thenardite in these regions is expected to rebound in 2010 at the earliest. Little or no growth is anticipated in North America and Europe.



The table below sets forth global natural thenardite consumption levels for the periods indicated:

Source: Behre Dolbear

OVERVIEW OF CHINA'S THENARDITE INDUSTRY

China ranks first in the world in terms of the size of glauberite reserves and is the world's largest producer and exporter of thenardite. As the data collected by Behre Dolbear are from various sources including government-derived information, annual reports of companies in the thenardite industry, reference books and articles published in industrial minerals and chemical journals, the words "reserves" and "resources" used in this chart are generalizations and are not intended to be in strict conformity with specific international codes and/or categorization systems and/or usages to which such terms are customarily applied.

Glauberite Reserves in China

The characteristics of China's glauberite reserves are as follows:

- as of 2008, China's total glauberite reserves (in terms of thenardite volume) are approximately 10.5 billion tonnes, accounting for approximately 88% of the total global reserves;
- the provinces with the most abundant glauberite reserves are Sichuan, Qinghai, Inner Mongolia, Yunnan, Jiangsu, Hubei and Hunan;
- among China's glauberite deposits, more than 80% are categorized as large and medium-sized; and
- glauberite reserves in China are relatively high-grade, with average purity of glauberite ore of approximately 24.3% Na₂SO₄; the glauberite ore in Sichuan Province is particularly good with an average purity of up to 34.7% Na₂SO₄.

Thenardite Production in China

China is a major producer of thenardite products. There are approximately 200 producers with natural thenardite production facilities, 59 of which are considered major producers, according to JT Boyd.

A majority of China's thenardite output is concentrated in Sichuan and Jiangsu provinces. The average output from the major producers ranges from 30,000 to 550,000 tpa per producer and the average output among small producers ranges from 150 to 200 tpa, according to JT Boyd.

Thenardite production volumes have grown significantly in China in the past decade to a total annual production capacity of more than 12.1 million tpa by 2008.

Thenardite Demand in China

Traditional downstream industries, such as powder detergent, glass and textile production are expected to remain the main sources of demand for thenardite.

Detergent

Currently, 37% of thenardite demand in China comes from the production of powder laundry detergents. Consumption of thenardite in the powder detergent industry was approximately 2.1 million tonnes in 2008. Driven by the growth of economy and the improvement of living conditions in China, consumption is expected to grow at an annual rate of 2-3% from 2008 to 2010. According to Euromonitor International, the retail market size of powder detergent in China was approximately RMB20.9 billion for the year ended December 31, 2008.

Glass

Growth in the glass manufacturing industry is mainly driven by China's construction and automobile industries. The consumption of thenardite in the glass manufacturing industry was around 0.7 million tonnes and accounted for approximately 13.0% of total thenardite demand in China in 2008. The projected annual growth rate for this market from 2008 to 2010 is approximately 1-2%.

Textiles

In 2008, the consumption of thenardite by the textile industry was around 1.0 million tonnes and accounted for approximately 18% of the total thenardite demand in China in 2008. Annual growth rate in this market from 2008 to 2010 is projected to be around 1-2%.

Food and Medical

Behre Dolbear believes that current consumption of medical and food grade thenardite in China is probably in the range of 110,000 to 140,000 tonnes per year. According to Behre Dolbear, some studies suggest that medical thenardite consumption may reach 400,000 tonnes by 2014.

Demand from New Applications

New thenardite application areas in China include the production of cement products, pre-processing of coal for coal-fired power plants and production of fertilizer and other chemical products. Future demand for thenardite could increase as a result of the development of these new applications of thenardite.

Demand from Exports

China is the biggest thenardite exporter in the world, and its 2008 export volume was approximately 2.6 million tonnes. The high quality and low prices of Chinese thenardite products and the proximity to high growth Asia markets provide the Chinese thenardite producers with economic advantage in several markets worldwide. Chinese thenardite exports have increased at a CAGR of 12.2% between 2004 and 2007. Due to the recent global economic crisis, the growth of exports is expected to slow down for the next two years and to maintain at a CAGR of 2%. Total exports of thenardite are expected to be over 2.7 million tonnes in 2010.

Brazil, Indonesia, Korea, Philippines, Vietnam, Japan and other areas in South America and Asia are the primary markets for Chinese thenardite products. In these regions, the demand for thenardite has experienced a increase in the last several years. Since China is now a member of WTO, it has the ability to export thenardite products with minimal trade restrictions to countries that are also WTO members.

The following chart shows China's natural thenardite export volumes from 2003-2008:

Chinese Exports of Natural Thenardite by Destination Country

			Korea						
Year	Brazil	Indonesia	Republic	Philippines	Thailand	Vietnam	Japan	Others	Total
	(Million Tonnes)								
2003A	0.07	0.14	0.18	0.08	0.07	0.13	0.07	0.59	1.35
2004A	0.16	0.19	0.19	0.09	0.08	0.13	0.06	0.70	1.59
2005A	0.25	0.26	0.18	0.07	0.08	0.16	0.08	0.89	1.90
2006A	0.33	0.26	0.17	0.08	0.09	0.16	0.70	0.93	2.00
2007A	0.41	0.23	0.16	0.10	0.10	0.16	0.70	1.03	2.24
2008E	0.45	0.27	0.15	0.11	0.07	0.23	0.08	1.25	2.61

Source: Behre Dolbear

Competition and Pricing

Most thenardite producers in China have historically operated at or near full capacity. It is expected that domestic competition will increase as numerous domestic producers have announced production capacity expansion plans. We are the only producer in China with a 1.0 million tpa single line production facility and are the second largest thenardite producer in the world in terms of production capacity as of December 31, 2008. The table below summarizes production capacity of the top five Chinese thenardite producers broken down by production facility and total production capacity as of December 31, 2008:

	PRODUCTION CAPACITY	
MAJOR THENARDITE PRODUCERS IN CHINA	BY PRODUCTION FACILITY (tpa)	TOTAL PRODUCTION CAPACITY (tpa)
Nafine Group International Co., Ltd.	0.6 million 0.5 million 0.3 million 0.3 million	1.7 million
Lumena Resources Corp.	1.0 million 0.6 million	1.6 million
Xinli Chemical Co., Ltd.	0.8 million 0.6 million	1.4 million
Hongze Yingzhu Chemical Industry Company	0.7 million 0.2 million 0.2 million	1.1 million
Yahong Honga Qing Yi Jiang Chemical	0.8 million	0.8 million

It is anticipated that thenardite producers in China will not face any significant competition from overseas suppliers, because overseas suppliers are subject to high transportation costs. In addition, since most overseas producers are operating at full capacity they would have to spend significant capital to expand their operations before they could expand their international market shares.

With numerous thenardite producers expanding their production capacities, it is unlikely that prices will rise significantly, if at all, in the near future. Given the large number of high volume producers in China and the recent slowdown in China's economic growth, there is a risk of price-cutting by thenardite producers to secure market share.

China Market Forecast

Domestic thenardite consumption has expanded at an average annual rate of approximately 16% for the past seven years as China's economy has rapidly and steadily developed. With the current worldwide economic downturn, however, growth in domestic thenardite consumption has been slowing down in the key traditional downstream markets as well as in various new application areas.

The historic projection of natural thenardite demand from 2007 to 2010 in China is shown in the chart as follows:



Source: Behre Dolbear