

heavy fuel oil/t	█	2,000.00	█
lpg/t	█	4,000.00	█
nitrogen/ m3	█	1,000.00	█
Total			█

I-3.3 Hydrogen cyanide

Hydrogen cyanide (abbreviated as HCN) is a chemical compound with chemical formula HCN. A solution of hydrogen cyanide in water is called hydrocyanic acid. Hydrogen cyanide is a colorless, very poisonous, and highly volatile liquid that boils at 26 °C (78.8 °F), slightly higher than room temperature. And it can only be transported through pipeline over short distances. Thus almost no HCN circulates in the market.

Table I-3.3-1 Production situation of Hydrogen cyanide in China

Pathway	Number of producers	Capacity '08	Share	Active producers
Acrylonitrile pathway	█	█	█	█ █ █
Natural gas route	5	█	█	█ █
Light oil cracking way	3	█	█	█
Methanol route	█	█	█	█
Total	█	█	█	█

Source: CCM International Ltd.

II Import & export Situation of feed grade methionine

China's methionine import volume in 2007 is █ tonnes with █ tonnes per month.
DLM:MHA= █

Table II-1 Growth rate of methionine import volume in 2008(Jan-Aug) (tonne)

	MHA	DLM	Total	MHA:DLM
2007(Jan-Aug)	█	█	█	█
2008(Jan-Aug)	█	█	█	█
Growth rate	█	█	█	

Source: CCM International Ltd.

III Consumption of methionine in China

Nearly all the feed grade methionine are used in feed industry in China except [REDACTED] tonnes are used to refined into food and pharmaceutical grade methionine.

Table III-1-1 Consumption structure of feed grade methionine in China in 2005~2007 (onnet)

Year	Feed	Share	Food and pharmaceutical	Share	Total	Growth rate of total
2005	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2006	[REDACTED]	99.12%	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2007	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: CCM International Ltd.

III-2 Brief introduction to major downstream industries in China

III-2.1 Feed industry

There are two kinds of methionine used in feed industry: DLM and MHA.

Table III-2.1-1 Methionine consumption in feed in China, 2005~2007 (tonne)

Year	Formula feed	Concentrate feed	Premix feed	Total	Growth rate of total consumption in feed
2005	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2006	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2007	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: CCM International Ltd.

Table III-2.1-2 Methionine consumption in different feeds in 2007 (tonne)

Feed	Pig	Poultry for egg	Poultry for meat	Aquatic products	Ruminant	Others	Total
Formula feed	[REDACTED]	[REDACTED]	24,893	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Concentrate feed	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Premixed feed	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: CCM International Ltd.

IV SWOT analysis and barriers for foreign company to invest in feed grade methionine in China

Table IV-1-1 SWOT analysis of BlueStar's AT88 project

Interior ability Exterior factors	<p style="text-align: center;">Strengths</p> [Redacted]	<p style="text-align: center;">Weaknesses</p> [Redacted]
	<p style="text-align: center;">Opportunity</p> [Redacted]	<p style="text-align: center;">SO</p> [Redacted]
<p style="text-align: center;">Threats</p> [Redacted]	<p style="text-align: center;">ST</p> [Redacted]	<p style="text-align: center;">WT</p> [Redacted]