Global MTBE Market Trend & Development

Yanji, Jilin Province, China
21-27 August 2005
World MTBE Production Capacity 2004 million metric tons

Source: MMSA
World MTBE Demand
million metric tons per annum

Source: JJ&A
World MTBE Demand
million metric tons per annum

Source: JJ&A
MTBE Price Trend

- MTBE Prices in US and Europe soared to record levels in mid-2005 (>US$1,100/ton in Europe)
- Strong gasoline demand in US and shut-down of MTBE plants resulted in 7% growth in MTBE demand for the first half of 2005
- In Europe, the inability to use reformate to increase octane (35% max aromatics in EU gasoline beginning January 2005) and conversion to ETBE
- Prices in Asia are the lowest
Global MTBE Spot Prices

Source: JJ&A
MTBE in China

- China is already the largest MTBE producer and consumer in Asia
- China’s gasoline demand grew by 17% in 2004, highest in the world more than 5X world average of 3% fuelled by sharp increase in new vehicles being registered
- China is moving towards stricter fuels specifications: EURO III/IV
Net MTBE Imports China 1995-2004
thousand metric tons

Source: Chinese Customs
MTBE Trend

- Middle East largest exporter
- US import will decrease
- European import have gone up significantly due to shortage of local production
- Asia particularly China will lead growth
- Countries like Australia & New Zealand has already stopped using MTBE in favour of gasohol
- Thailand has been promoting gasohol since 2000
- Philippines likely to impose limits on ethers
- But MTBE demand & growth in Asia and Middle East expected to be strong
Positive Developments

- MTBE consumption growing due to strong growth of gasoline consumption in China
- Gasohol usage may not take off in China as it compromises the nation’s food (grain) supply
- Indonesia tentatively moving towards lead removal, may need MTBE in the future
- Vietnam enforcing stricter gasoline quality along EURO model
US Energy Bill 2005
Salient Points

- Expected to be signed by President Bush in August 2005
- After 6 years of hard negotiation
- No Federal Ban on MTBE
- Removal of oxygenates requirement by May 2006
- No Liability Protection for MTBE producers
- No transition assistance for MTBE producers
US Energy Bill 2005 Impact

- Valero already announced conversion of all their MTBE plants to iso-octane
- Other refiners expected to follow suit
- Will take 18-24 months to convert MTBE plants
- Loss of MTBE capacity in US necessitating short term import of MTBE until May 2006
- After May 2006, other octane components need to be imported until plant conversions completed
Conclusion

- Europe will continue to use MTBE, some will convert to ETBE because of government’s subsidies.
- China is leading the growth in demand in Asia.
- More stringent gasoline quality will contribute to growth in Asia – removal of lead, lower aromatics/benzene content.
- Strong growth in the Middle East particularly in Iran.
- Long term viability is ensured by Responsible Care and Best Practices – avoid mistake in the US.