



The Effect of New 2011 Benzene Limits in US Gasoline

Analysis by DeWitt & Company Inc. of Potential Changes in Benzene & Toluene Production, Trade and Pricing:

The US Environmental Protection Agency has issued a new regulation, sometimes referred to as Mobile Source Air Toxics (MSAT) II, which will limit the amount of benzene in US gasoline to 0.62 vol. % in 2011. This regulation applies to both gasoline produced in the US as well as imported gasoline. The EPA has made an assessment that up to 1.5 million tons of benzene may have to be removed from gasoline by various means. DeWitt & Company Incorporated has undertaken a study that examines the impacts on global aromatics markets of these new benzene limits in US gasoline. DeWitt has extensive experience, which includes analyses of the market impact of earlier benzene regulations such as the Clean Air Act and AutoOil 2. DeWitt will study and project the effects on trade flows and pricing of any additional benzene and toluene resulting from this latest set of gasoline regulations. From those results, DeWitt will identify potential shifts in benzene and toluene markets from conditions that prevail currently.

Deliverables:

- ◆ US Benzene Supply/Demand by year starting in 2006 and post MSAT Regulation through 2015 showing production by process (extraction from reformat and pygas and toluene conversion).
- ◆ Estimates of additional benzene assessed to enter the market by US PADD with explanation of additional sources. Identification of potential new benzene producers will be made by refinery/region.
- ◆ Benzene Trade Flows for 2007, 2011 and 2015 to show the effect of new gasoline sourced benzene on US and foreign markets.
- ◆ Toluene Supply/Demand Conversion requirement shifts in the US between 2006-2015. Additional benzene may result in reduction of toluene conversion, depending on toluene and downstream market economics.
- ◆ Price Forecasts: US benzene price forecasts for the base case will be offered for years 2007-2015 against a 2006 base year. Toluene price forecast for 2007-2015 will reflect the effect of new benzene from the refineries.
- ◆ Benzene Credits Forecast for 2011-2015, which assume a number of refineries will have to use the credits to meet regulations.

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The Effect of New Benzene Limits in US Gasoline in 2011 On Benzene and Toluene Markets

PRELIMINARY TABLE OF CONTENTS

1. Executive Summary
2. Introduction
 - Background Summary of the EPA Regulation (MSAT II)
 - Description of ABT (Benzene Credit Program)
 - Early and Standard Credit Relief Mechanisms
 - Potential Valuation of Benzene Credits based on Cost
 - Update of Market Credit Trading
3. Description of Benzene Control Mechanisms in Gasoline
 - Isomerization
 - Prefractionation of Naphtha Feeds to Reformers
 - Postfractionation of Reformate
 - Isomerization of C5/C6 streams
 - Saturation
 - Aromatics/Benzene Extraction
4. Estimated Effect on Benzene Availability 2008-2015
 - Gasoline Assumptions
 - Benzene Removal from Gasoline from MSAT II regulations
 - US Benzene Supply/Demand Table
 - Impact of the Regulation on Benzene Production Patterns
 - Global Trade Flows
 - Impact of the Regulation on Benzene Flow Shifts
5. Estimated Effect on Toluene Availability 2008-2015
 - US Toluene Supply/Demand Table
 - Impact of the Regulation on Toluene Conversion
6. US Benzene and Toluene Price Forecasts 2008-2015
 - New Scenario
7. Conclusions