

# **BENZENE REDUCTION IN MOTOR GASOLINE - A REVIEW OF OPTIONS**

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## **Summary**

The performance and quality of motor gasoline are being improved to meet the increasing environmental and health restrictions on automotive emissions. These changes have forced the refining industry to modify the physical and chemical properties of gasoline through technology investment and operational changes. One of these properties is the content of benzene (typically in the range 3 - 5 vol%) since it has been established that benzene in gasoline correlates well with benzene in exhaust emissions. A variety of methods and processes have been proposed and developed for the reduction of benzene in gasoline. These processes are based on two approaches: the prefractionation approach for the removal of benzene and its precursors from the naphtha reformer feed; and the fractionation/conversion approach for benzene hydroisomerization, hydrosaturation, alkylation or extraction from the light reformate.

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