

**SOLUTION BRIEF: COMMODITY CHEMICAL SWAPS AND EXCHANGES**

Companies in process industries—specifically, producers of gasoline, diesel and jet fuel, as well as other refined products—have historically implemented product Swaps and Exchanges (S&E) to cut costs, improve customer service and overall logistics performance. In recent years, chemical and polymer companies have begun implementing swaps and exchanges to drive operational savings that can often exceed 20% of a logistics budget.

New swaps and exchanges techniques drive savings through optimization of logistics assets like terminals, fleets and warehouses. Commodity chemical and polymer companies share similarities with traditional S&E companies, and can benefit greatly from the practices of these refined product companies.

### **Making the Case for Commodity Chemicals**

Commodity chemicals are typically good candidates for product swaps and exchanges because the feedstocks for both chemicals and refined products and their end markets are often geographically mismatched. A product may travel to three separate locations around the U.S. before arriving at its final destination, so a chemical company must take into consideration the transportation, logistics and labor costs as well as compliance issues. Likewise, both commodity chemicals and refined products generally have thin profit margins, which can be greatly improved by as much as 50% through frequent swaps and exchanges.

A third similarity between refined products and commodity chemicals deals with chemical makeup. Like refined products, there are hundreds of grades or specifications of commodity chemicals, which would seem to complicate the idea of a possible swap. However, most commodity chemicals, like fuels, can be narrowed down to just three to seven product families and three to seven major production companies, making it an even greater possibility for beneficial commodity chemical and polymer swaps.

### **Key Considerations**

Of course, chemicals must be treated on a singular basis and there are some notable key differences between those and refined products. The sheer volume of fuel production is much greater than that of commodity chemicals. In addition, fuels have elaborate and transparent price postings at hundreds of terminals across the U.S. on a daily basis rather than the narrow—and sometimes closed—market for commodity chemicals. Finally, distribution and customer service is different in refined products and commodity chemicals: refined products utilize a national network with thousands of resellers and millions of end-customers, while chemical companies sell to a relatively limited and dedicated distribution network serving a customer base numbering in the hundreds.

As previously discussed, commodity chemicals can be swapped and exchanged to drive savings and improve customer service; however, there are several facts to consider that may affect the extent and frequency to which you can make swaps. The amount of customer information, such as a customer's consumption, may be highly confidential. Product specifications may also vary from customer to customer, making swaps slightly more difficult. In addition, product swaps and exchanges may be difficult because companies are involved in exclusive transportation and freight contacts. Finally, some companies are reluctant to discuss volume, order management, pricing and delivery with competitors for fear of losing business.

## Benefits

Implementing commodity chemical and polymer product swaps and exchanges can drive significant cost savings and transform the commodity chemical industry. By keeping chemicals in a smaller geographic region between sourcing and delivery, companies can improve customer service by saving time and shortening the overall delivery cycle.

Swaps and exchanges also decrease logistics costs by eliminating or minimizing freight, warehouse, rail fleet and working capital costs. Finally, swaps and exchanges will allow chemical companies to improve production yield and cut energy costs on commodity chemical and polymers by reducing the number of specifications run and increasing run duration.



## Best Practices for Commodity Chemical Swaps and Exchanges

Swaps and exchanges are not all created equal. There are several types of swaps, and each has its advantages based on:

- **Goals:** The program can be based on equivalent volumetric swaps between partners, yielding maximum savings for both parties.
- **Confidentiality Requirements:** The program can be based on confidentiality, where customers, products, transport rates and commercial terms are not discussed.
- **Reconciliation Requirements:** The program can be based on reconciling volume, freight cost and commercial value monthly or quarterly.

**Delivered Swaps** are non-scheduled swaps, conducted on an as-needed basis to cover plant upsets or turnarounds. These swaps have limited economic value and are considered a mediocre practice at best.

**Collect Exchanges** can drive savings while allowing all parties to protect confidentiality. Collect Exchanges are conducted on a regular basis with goals such as an annual target volume and quarterly minimums and maximums.

**Third Party Exchanges** occur when a third party manages the order, delivery, accounting, and billing and reconciliation process. Third Party Exchanges allow companies to protect confidentiality, maximize economic value and minimize any commercial risk.

## About ChemLogix

ChemLogix is a leading provider of chemical industry transportation rate optimization, supply chain consulting services and comprehensive transportation management services that enable our clients to improve performance and increase profits. ChemLogix delivers both “point” and “end-to-end” logistics solutions, including organization of Swaps and Exchanges (S&E), through CI3PLUS, our unique business model that combines the efficiencies of outsourcing with strategic insights and industry-leading best practices to provide world-class logistics performance for chemical organizations.