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Dear Customer:

We are committed to keeping our customers informed on the extraordinary supply challenges and cost inflation affecting the adhesive industry by sending regular communications.

Raw Material Supply Update

Water-based

Raw materials for water-based adhesives continue to be 'tight' to 'short' with demand remaining high. All the key North American producers of VAM remain on Force Majeure or sales allocation and, while they are all now producing, supply from one key producer will remain below normal until at least November.

In addition, essential scheduled maintenance programs at several VAM production sites have been delayed but will need to happen before the end of this year to prevent potential damage to these facilities.

The global shortage of VAM also affects other key raw materials, such as PVOH. This material is also tight to short and, while we have managed to source additional volume of these materials from new suppliers, logistical issues regularly result in disrupted supply.

There is essentially no stock of water-based raw materials anywhere in the supply chain. This means adhesive manufacturers are converting the materials as soon as they arrive, and any supply disruptions result in immediate production delays and schedule changes.

One key acrylate producer and one methacrylate factory were closed as a result of Hurricane Ida. While they have restarted there is now a shortage of 2EHA, and MMA is also tight. While the storm did not result in any significant damage to most facilities, heavy flooding and continued power outages have led to disruption and have caused damage at plants producing upstream materials like industrial gases that are essential to the manufacture of the materials we buy. In addition, Tropical Storm Nicolas, which made landfall in Texas as a category 1 hurricane, will bring further strong winds and heavy rain to plants already struggling with the impact of Ida.

Hot Melt

The latest reports indicate that Hurricane Ida did not significantly damage any key supply sites but some chemical facilities in the New Orleans/Baton Rouge region are still without electricity and some plants remain shut down. One facility manufacturing Hydrogen, used in many manufacturing facilities, was damaged and has resulted in immediate shortages. It is not known when production can restart, and the lack of hydrogen supply immediately resulted in one key supplier of resin having to shut down.

Demand for hot melt adhesives used in packaging and converting applications remains high. Increased production of solar panels in China is creating a tight market for EVA. Shortage of VAM production is also aggravating the supply chain. Metallocene materials are tight globally and wax supply has been tightened because of manufacturing issues in South Africa and shipping delays from Malaysia.

Demand for hygiene products is increasing again in Asia but supply of pressure sensitive hot melt adhesives is secure with no foreseeable short-term issues.

Despite the challenges, we have secured supply to meet existing customers hot melt demand.

Packaging

A nationwide shortage of paper and plastics is leading to a tight market for nearly all types of packaging. Totes, bulk cardboard containers and boxes are all affected, with labor shortages also being quoted as additional reasons for supply issues.

Logistics Update

Lead times for sea container deliveries are now a minimum of 12-16 weeks and shortage of shipping means demand is higher than capacity. Congestion at U.S. ports is getting worse and frequent shutdowns of ports in China, because of new COVID outbreaks, are adding to the problem.

The rail network in the U.S. is struggling to meet demand. They are reporting a shortage of >10,000 staff across the USA and, as a result, often cannot run overtime or weekends. There are frequent delays in the delivery of raw materials and there are not enough trucks or drivers to compensate for the shortfall. Some of our raw materials also require special trucks and qualified drivers, which are also in high demand.

Rising Costs

High demand and tight supply are resulting in the highest inflation of raw material costs this industry has seen in living memory. Cost increases are accelerating and, until supply exceeds demand, inflation is expected to continue. Most forecasts indicate that costs will continue to increase through at least the end of Q2 2022 with, at best, some stability by Q3/Q4 of 2022.

Other costs also continue to escalate, including labor, freight and packaging. In addition, recruiting and keeping labor in manufacturing sites in North America is a key challenge and is affecting ability to maximize output.

Actions taken by H.B. Fuller

Our focus remains on securing supply of raw materials for our existing customers. We will not take on significant new business until we can meet the needs of our existing accounts. We are expediting raw materials and finished goods to meet demand, incurring significant extra cost. We have air freighted materials from other regions to help meet customer needs. We are running our plants at maximum capacity, after considering raw material delivery delays, and we have recruited our own fleet of tank truck drivers and vehicles to supplement those of our transport partners.

These are extraordinary and unprecedented times for our industry, and we ask for your patience and understanding as we work through these challenges.

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