

## THE PROBLEM

A chemical manufacturer created a novel process and built a new plant to manufacture a commodity chemical from plant derived materials. While the process was much more efficient than the traditional manufacturing process, the new process produced 6 separate coproduct streams that would have to be disposed of if a reuse solution could not be found. The coproducts were all mixtures that included several chemical constituents and 35 percent water overall and were not re-usable as produced. The manufacturer, who was originally combining all the coproducts into a single stream, reached out to Altiras Chemicals for help.



## THE ALTIRAS SOLUTION

The Altiras Team evaluated the coproducts as follows:

- Evaluated the combined coproduct stream, including historic analytical, samples, and assessed usability in our known markets to determine the combined stream was not usable as-is in the combined form with 35% water.
- Assessed the details of the manufacturing process to evaluate the individual streams as produced.
- Requested and received samples of each stream for evaluation.
- Performed laboratory analysis and processing on the 6 streams to determine the best overall options.
- Made preliminary assessment of the viability of the 6 individual streams, concluding that 4 of the 6 streams could be used as-is, without further processing. The other 2 streams could be processed to yield viable products.

## RESULTS

The Altiras Chemicals team made a proposal to the manufacturer to purchase the 4 streams and to process and recover the 2 remaining streams either on-site or at an off-site location. The solution minimizes waste, significantly enhances value, and significantly improves ESG scores and carbon footprint for the manufacturer.



### Comprehensive

Altiras' extensive experience in reuse, RCRA regulations, product stewardship, and relevant product markets produce the best results.



### Problem Solving

Altiras develops solutions and determines the best markets and uses for coproducts and byproducts.



### Low/No Risk

Altiras solutions include evaluation of RCRA, product safety, Hazcom, and product stewardship considerations.



### Sustainable

Altiras makes maximum reuse of materials and provides net value back to its suppliers and clients.