TRADEBE Treatment and Recycling, LLC operates 3 unique distillation units to meet our customer’s requirements.

Because each unit is specialized, we can address the complete range of distillation challenges. In addition, Tradebe is now operating a Molecular Sieve which removes additional water from our reclaimed solvents, increasing the solvent market value and enabling Tradebe to provide Toll Processing of our bulk waste streams for our customers. Toll Processing is a closed loop reclamation program: Tradebe returns a finished product, reclaimed according to customer specifications, back to the customer.

Since the inception of our distillation program, we have reclaimed more than 6 million gallons of solvents.
Fractional Distillation

Fractional distillation is used to separate mixtures of miscible liquids, such as ethanol and water. The technical aspects of the fractional distillation process allow mixtures to be returned to their original states with a 99.9% degree of purity.

With Tradebe’s Fractional Distillation, leftover or unwanted by-products can be used in our fuel blending program while finished products can be returned to industry for reuse.

In our system, liquid is raised to boiling and vapors pass through a tubular column where temperatures are gradually lowered along its length. Components (fractions) with a higher boiling point condense on the column and return to the solution. Fractions with a lower boiling point pass through the column and are collected. Our Tradebe team actively conserves resources by reclaiming spent solvents.

Solvent Recovery Distillation

Tradebe’s second distillation option is a Solvent Recovery Distillation Unit. This unit has a wiper blade and can handle high solid (<20%) viscous feedstock. This technology can reclaim approximately 40,000 gallons of solvent per month. The Solvent Recovery Distillation Unit is used for smaller batches of solvents received by Tradebe to remove solids and color from the solvent.

Thin Film Evaporation

Tradebe’s vacuum-assisted Thin Film Evaporator, a wiped film evaporator, is a process that separates volatile from less volatile components using indirect heat transfer and mechanical agitation.

This technology removes solids and color from the solvent waste stream, and is differentiated from our Solvent Recovery Distillation Unit because the Thin Film, rated at 250 gallons per hour capacity, can handle higher volumes of solvent material.

In order to create a reusable product, our Distillation Technicians can run our distillation products through our Molecular Sieve, if necessary, to create a solvent with low water content, and high market value. We produce several solvent blends which we sell for industrial applications. Contact Tradebe to learn about our available products.

Distillation of solvents by Tradebe reduces over 98% of CO2 emissions compared to producing solvents from fossil fuels.