



WSI
Innovation at work™



WSI Green Credentials in partnership with County Textile Services Limited

Safety and sustainability are the vital threads of WSI that are woven into every product and service we bring to market. As the first and only company to provide the industry with products 100% free of NPE's and phosphates, we continuously prove our commitment to these values.

We are honored to receive numerous accolades and awards in these areas, including from OSHA, the EPA, and the National Pollution Prevention Roundtable. A green future. Your safety. These are the challenges and opportunities fueling our innovation and inspiring our work.

WSI is a proud member of the Kao Corporation family. Integrity is at the heart of everything that we do. As a testament to these values, for the 15th consecutive year, Kao has been named one of the *World's Most Ethical Companies*® by US think-tank Ethisphere Institute. Ethical behavior never goes out of style

Science-based. Performance-focused. Washing Systems is the leading provider of innovative products and services to the commercial laundry processing industry.

Driven by comprehensive technological innovations, we deliver powerful advancements in the cleaning, processing, and disinfecting of textiles. We are always moving forward, maximizing performance while reducing environmental impact.

Recognized as market leaders in innovative, sustainable technology solutions to the commercial laundry processing industry. Bringing our core values and vision to market. We're thrilled to have received the following recent recognitions.

- 2019 United States EPA Green Chemistry Challenge Award



WSI is being recognized for developing TRUpath™, a successful alternative to traditional commercial laundering technologies that use harsh and harmful chemicals. TRUpath™ uses more biodegradable surfactants and eliminates phosphates from wash formulas. TruPath Chemistry is being used at CTS County Textile Services



Summary of Technology:

Commercial laundering traditionally has utilized harsh and harmful chemicals such as sodium hydroxide, sodium or potassium phosphates, and nonylphenol ethoxylate-based surfactants. Phosphates in detergents can lead to freshwater algal blooms that are toxic to other aquatic organisms and which deplete oxygen in waterways. Nonylphenols are endocrine disruptors that accumulate in sewage sludge, river sediments, and groundwater.

WSI's TRUpath™ technology provides successful alternatives that overall are readily biodegradable and less toxic to the environment. TRUpath™ utilizes a nonylphenol ethoxylate-free detergent that substitutes more readily biodegradable, linear chain alcohol ethoxylates. TRUpath™ also utilizes an EDTA- and phosphate-free builder and an enzyme-based booster. Additionally, the TRUpath™ process works at colder temperatures than traditional laundry formulations, which reduces energy consumption and decreases cycle time, meaning fewer machine hours.

WSI's TRUpath™ technology was commercialized in 2018. The use of this laundry system has displaced nearly 30 million pounds of nonylphenol ethoxylate-based detergents. Additionally, the TRUpath™ detergent has prevented the discharge of petroleum hydrocarbons into wastewater by approximately 200,000 lbs/yr and reduced overall laundry wastewater discharge by more than 1.3 million lbs/yr. Removing phosphates from the laundry builder has reduced phosphate discharge into the environment via wastewater by 1.5 million lbs/yr, and removing EDTA has

reduced EDTA discharge by 104,000 lbs/yr. Additionally, annual use of natural gas is reduced nationwide by greater than 5.1 million therms, and 545 million gallons of water are saved annually.

- **Effective soil removal at lower wash temperatures**

- **Fabric durability is extended by appropriate combination of pH and low temperature, this extends the lifecycle of your textiles reducing the requirement for ordering new items.**

1. Zero NPE, Phosphate and ETDA in all WSI products. Alkali free and low Alkali processes mean less waste water contamination.

- **Reduced energy consumption (gas, electricity) for heating water, lowering your carbon footprint**

- **Our wash processes have lower water usage rates than many other suppliers (Supply & Disposal)**

- **Efficient formulas and short total run times on wash extractors presents immediate improvements in labour costs, utility usage and wash capacity.**

UK manufactured chemicals produced in West Yorkshire.