



INNOVATIVE BIO-BASED PERFORMANCE SOLUTIONS

Vertec BioSolvents, Inc. manufactures a full line of renewable resource, bio-based solvents and solvent formulations that provide high performance as formulating ingredients, carrier solvents and/or cleaning solvents, primarily as substitutes for petroleum-based solvents. The main ingredient in many VertecBio™ formulated products is VertecBio™ EL Ethyl Lactate, an ester solvent derived from corn or sugar beets, and has solvating performance for many resins, pigments, gums, soils, greases, and similar materials. Performance can be enhanced by the addition of VertecBio™ products. As cleaning solvents, they are very effective against a wide variety of contaminants. As a bio-based component in your formula, VertecBio™ products provide high solvating capacity, thus enabling production of concentrated or high-solids finished products.

PRIMARY PRODUCT LINES and APPLICATIONS:

- **VertecBio™ EL Ethyl Lactate** – Available in **Technical Grade, High Purity Grade, and Food Grade (FCC/Kosher)**. A bio-based solvent for formulating printing inks, coatings, resin cleaners, paint strippers, graffiti removers, ink cleaners, etc. Outstanding solvent for agricultural pesticide/herbicide formulations, with approval from the US EPA as a List 4A inert ingredient and “exempt from the requirement of a tolerance.” A good “precision cleaning” solvent that dries without leaving any film or residue. Excellent for cleaning some lighter oils and greases, and adhesives. Used extensively for electronic circuit board cleaning, aircraft wipe cleaning and other demanding applications.
- **VertecBio™ ELSOL®** – A line of patented, breakthrough products composed of a blend of VertecBio EL, a monohydric alcohol and, in most cases, another co-solvent. ELSOL blends are formulated to replace specific hazardous petroleum solvents. For example, ELSOL-TR is a drop-in replacement for toluene. Clean ECO-Solv is an effective, 100% biobased replacement for IPA solvent, and is a very good wipe solvent with bio-static properties.
- **VertecBio™ Biobased Ethyl Acetate** -- VertecBio Biobased Ethyl Acetate is a drop-in replacement for petroleum derived ethyl acetate. Physical properties and solvent functionalities of petroleum-derived and bio-based ethyl acetates are essentially the same. The advantage of Biobased Ethyl Acetate is that it is made from renewable resources, using sustainable technology and has a reduced carbon footprint.





- **VertecBio™ LVC Products** – A product line of partially bio-based products formulated to contain less than 250 grams/liter Volatile Organic Compounds (VOC's). Uses include formulating acrylic and other coatings, inks, adhesives, cleaning products and other consumer products that comply with US and California VOC regulations. Works well as a low-VOC cleaning solvent for polyurethane and other polymers.
- **VertecBio Gold®** -- Product Line composed of a patented blend of VertecBio EL and soy methyl esters. Bio-Based solvent blends for cleaning heavy petroleum materials, such as asphalt, tar and greases. Very effective for ink and graffiti removal. VertecBio Gold is a very effective, long-lasting solvent for removing greases and oils from metal parts. Waterrinsing without the addition of surfactants. Flash point > 150° F.
- **VertecBio™ Citrus** – Product Line composed of patented blends of VertecBio EL and citrus(orange or lemon/lime) terpenes and other bio-based solvents. Outstanding as a paint “line flush” solvent and cleaner. Used for cleaning oils and greases, graffiti, inks and adhesives. Very good performance as a resin cleaner for epoxy, acrylic/epoxy, partially cured UV and polyurethane materials. Ideal for vessel cleanout – tank trucks, semi-bulk bins, reactors, storage tanks. Pleasant citrus fragrance.
- **VertecBio™ ELpine®** – Product Line composed of a blend of VertecBio EL and pine terpenes. Very similar characteristics and performance to VertecBio Citrus products, but at a more economical and stable price. Used in formulating floor-stripping products, to remove polymers and polishes. Pleasant pine fragrance.
- **VertecBio™ 5516** – Product is a performance blend of VertecBio EL and a proprietary co-solvent. Similar performance to VertecBio EL with the added advantage of a sweet, pleasant fragrance. Used for cleaning polyurethane and epoxy equipment and piping. Dries without leaving a residue.
- **VertecBio Ink Zapper®** – A line of ink cleaning products for the printing industry, formulated using VertecBio EL, co-solvents and other ingredients. Capable of cleaning allprinting inks, even dried, hard ink buildup.
- **Custom Solvent Blends** – The Vertec BioSolvents Research, Development and Applications Laboratory is pleased to work with customers, both new and existing, to formulate, develop, test, and manufacture custom products that meet the needs of their specific applications. We consider this ability to provide technical support and solutions to our customers to be a strength at Vertec BioSolvents, Inc. We welcome your inquiries.

