Food Products and the use of Microbes:

OzzyJuice Chemicals used in the SmartWasher system are approved for use in Food manufacturing facilities such as flour mills, bakeries, meat and fish processing plants.
Like any chemical there are strict guidelines for their use around food and associated packaging and customers are required to follow these guidelines appropriate to their process. Refer attached documentation (NFS Registration SW3 and NSF Registration SW6).

Ozzy Microbes and his cousins the living components in the SmartWasher parts cleaning systems are actually a highly specialised blend of cultures specifically selected and adapted to degrade a wide range of hydrocarbon wastes only within the SmartWasher system. These microbes are introduced to the SmartWasher system through the filter pad and then circulate throughout the OzzyJuice fluids such as SW3 or SW6. These are the same as or similar to the microbes you would expect to find on the metal surface of a solvent parts washer or on the surface of a gearbox drive unit where oil or grease is present. The microbes are able to live in the OzzyJuice fluids only because of its neutral pH and any hydrocarbon food source available.

While the thought of a product being based on live microbes might seem a little strange, it is actually an environmentally sound concept. Microbes are a common occurrence in nature. Microbes of all types are constantly around us; they are on your body right now, even though they cannot be seen with the naked eye.

While some microbes are "bad" for human survival, most microbes have either no impact on humans or affect us in positive ways. The microbes used in the SmartWasher are completely safe to humans and the environment. The 8 strains of microbes present in the OzzyMat are all classified as American Type Culture Collection (ATCC) Class I. Organisms in this classification have no recognized hazard potent ional under ordinary conditions of handling. They are subject to unrestricted distribution by the ATCC, U.S. Department of Health, Public Health Service and the Toxic Substances Control Act (TOSCA). Organisms receive this classification only after extensive study and review by ATCC and government committees.

Each strain of microbes used in our OzzyMat is developed with regular integrity checks under ISO 9002 conditions. During the manufacturing process, supplier personnel and outside laboratories perform antibiotic screenings and check for contamination. Production or fermentation is done under exacting clean conditions to insure that only desirable organisms are produced.

Microbes have been successfully used in petrochemical plants, chemical plants, refineries, food processing plants, marine barges, machine shop parts washers, truck washes, wood treating plants and ground waste water remediation applications. Our Ozzy microbes in particular remediate: Crude Oil, Oils, Solvents, BTEX, Greases, Amines, Creosote, Phenols, PCP's, Fats, and PNA.

The microbes in the SmartWasher have been proven effective in wastewaters containing BOD or COD in excess of 50000mg/l. They have been used to achieve consistent effluents with ranging influent organic levels, improve settle ability of biological solids, correct low or inconsistent MLVSS numbers, and control foam production from partially degraded organics.

In the SmartWasher the basic bioremediation procedure has two parts: Hydrocarbon-eating microbes are blended with special nutrients and catalysts and then introduced into petroleum-contaminated water. The microbes bond to the petroleum molecules and begin discharging enzymes that break down the hydrocarbon structures into more water soluble, digestible materials that are subsequently absorbed through the cell wall and digested further. The nutrients and catalysts mixed with the microbes speed up the organism's rate of reproduction and digestion. When provided a supportive environment within the SmartWasher the bioremediation materials continue to manufacture themselves throughout the contaminated water, increasing the overall biomass of microbes in an exponential manner until all of the hydrocarbons are consumed. The end result is that water that was previously contaminated with petroleum becomes "clean" with all of the hydrocarbons converted to water and carbon dioxide.

The major benefit to a food processing plant is that unlike machinery components cleaned in a solvent that dries and then attracts microbes to its surface that remain there. When parts are cleaned with OzzyJuice they can then be rinsed in potable water or sterilized through some other medium, something that is difficult to do when any petroleum based compound is left on a parts surface.