BIOREMEDIATION TECHNOLOGY

OilCure
INNOVATIVE ENVIRONMENTAL REMEDIATION

"BioRem" short for biological remediation, is an environmentally-preferred green technology and economically-desirable option for companies searching for a viable alternative to caustic and solvent-based parts cleaners. Bioremediation is the natural process of biologically converting hazardous chemicals, such as hydrocarbons, into non-toxic by-products using microbes, enzymes, oxygen and other nutrients to biologically convert hydrocarbons into carbon dioxide and water.

These innovative, biological cleaners are ideal for removing oil and grease from tools, engine components and other parts. Bioremediation can provide the opportunity for facilities to eliminate and reduce hazardous waste, workplace health and safety risks, environmental liability and costs. It is a replacement for d'limonene, naphtha, mineral spirits, MEK, methylene chloride and other petroleum-based solvents.

BioRem-2000 use state-of-the-art microbe technology to provide superior cleaning results without the disposal costs and safety risks of traditional solvent and surfactant-based cleaners. They are strong enough to remove heavy build-up of oil, grease and grime from the toughest industrial cleaning tasks without the risks that conventional cleaners cause.

BioRem-2000 is an all-natural botanically-blended enzymatic system which is coupled with 12 strains of microbes that accelerates the digestion of hydrocarbons in surface-washing applications. Microbes convert hydrocarbons enzymatically prior to the ingestion of the organic material. It breaks down macroscopic clumps of hydrocarbons into smaller molecules and increases the surface area of the molecules making them more water-soluble. The microbes use a process of extracellular and intracellular enzyme production in which enzymes are excreted from the microbial cell. The microbes secrete various enzymes that begin the process of cleavage and digestion of the hydrocarbons. The enzymes chop the long-chains of the hydrocarbons into two carbon units which are used as a source of food for the microbes to reproduce.

The resulting by-products are carbon dioxide and water. Once the reaction is complete, the microbes and enzymes break free and attach to another chain of hydrocarbons in order to repeat the same process. The unique characteristic of the microbial blend is its ability to adapt to the changing distribution of hydrocarbons and produce more of the enzymes needed to digest that particular type of chemical allowing the statistics of the reaction to improve by increasing the number of collisions per second. All of the microbes used in the BioRem-2000 Surface Cleaner are completely safe, non-pathogenic and are classified as ATCC Class I, which has no recognized hazard potential under normal operating conditions.

Biological Cleaners Versus Caustic and Solvent-Based Cleaners:

Microbe-based cleaners differ from solvent and caustic-based systems by using a non-toxic and pH-neutral solution that does not require special handling or disposal. High cleaning efficiency is maintained, unlike that of caustic and solvent-based cleaners. Caustic and solvent-based cleaners lose their performance quickly, as oils and greases damage the cleaning solution. Biological cleaners maintain performance over very long periods, as oils and greases are broken down into carbon dioxide and water by the microbes in the system. Unlike caustic and solvent-based cleaners, biological cleaners offer a consistently high cleaning performance by using natural micro-organisms which break down contaminants such as oil and grease.

Effective - Consistent performance is maintained over a long period, unlike that of caustic or solvent-based cleaners.
Economy - Concentrated formula which eliminates costs for transportation, storage or disposal of cleaning solution.
Safety - Neutral pH, non-flammable, no VOC's and is non-hazardous. No unpleasant odours.
Environmental - Reduces your carbon footprint and does not generate hazardous waste disposal.
Versatile - Use on all metals and washable surfaces.