BIOREMEDIATION

HOW ABSORBENTS FROM ABSORPTION CORP MAKE BIOREMEDIATION MORE VIABLE

BIOREMEDIATION, the business of accelerating the natural degradation of unwanted waste materials. Naturally occurring microbes can accelerate the complete breakdown of oil based waste liquids from many months to as short as a few days. The residual is non-toxic, benign to the environment and suitable to support agriculture. This methodology is the most environmentally sound method of disposing of many oil waste materials and is gaining acceptance rapidly. Bioremediation is the way of the future.

There are many millions of gallons of such waste being stored worldwide waiting for an effective method of disposal. More such waste is being created continually. The cost of such long term storage is a strong incentive to find a solution to the problem.

In order to effectively apply bioremediation methods to oil based liquid waste, the liquid must first be deliquified. The liquid must be converted to a solid form that will not leach into the soil or groundwater system. The method of deliquification must also be environmentally acceptable. Absorption Corp's natural fiber, biodegradable absorbents are repeatedly proving to be the best possible medium for these activities.

In a typical scenario, natural fiber absorbents from Absorption Corp are mixed with the liquid waste thereby creating a non-liquid mass. The high liquid retention characteristics of the absorbent materials allow the saturated material to be spread out on pads or open fields for application of bioremedial techniques. The water repelling and oil absorbing abilities of Absorbent W allow this activity to be carried out even in locations were there is concern about potential leaching due to heavy rainfall.

When the bioremedial activity begins to take place on the oil saturated absorbent, the microbes accelerate the degradation of the oil. When the biodegradation is complete, the oil has been entirely broken down into water and other harmless materials. The absorbent material will continue to degrade as cellulose fiber (wood) does. The net result is that a former storage and waste problem has now been converted to soil conditioner and nutrient, a potential benefit to agriculture. There is no other absorbent that is as environmentally suitable for this application as Absorption Corp's entirely natural cellulose fiber absorbents.

BIOREMEDIATION AND ABSORBENT W

BIOREMEDIATION: The natural biological degradation of organic materials.

Effective bioremediation of waste oils requires the following critical conditions:

- An environment where oil degrading microbes will thrive.
- A method of retaining liquid oil so the microbes can attack it.
- The right microbes.

Absorbent W and *Absorbent GP* have proven themselves as the ideal microbe host repeatedly in successful bioremediation projects. Specifically, they perform the following key functions without parallel:

- *Absorbent W* and *Absorbent GP* trap and retain the liquid oil, keeping it under attack by the microbes.
- *Absorbent W* and *Absorbent GP* provide the ideal environment for microbe growth:
  - A consistent neutral pH
  - No toxins or poisons
  - Granular nature for excellent air and water circulation
  - Cellulose fiber nutrients for microbe feeding
  - Basic biodegradability

The residual of a successful *Absorbent W* or *Absorbent GP* hosted bioremediation effort is complete non-toxic and provides a valuable soil conditioner for agricultural uses.

There are simply no sorbents which rival the ability of natural cellulose *Absorbent W* and *Absorbent GP* in facilitating successful bioremediation.

Bioremediation firms which utilize *Absorbent W* and *Absorbent GP* include: