



BIOCAT™ DIGESTER

Product Information Sheet

BIOCAT™ DIGESTER is a natural biological stimulant designed to:

- Speed up digestion of dissolved and suspended solids
- Reduce hydrogen sulfides and increase methane production
- Increase settleable solids
- Reduce biological oxygen demand (B.O.D.)

The membrane of a healthy cell balances nutrients and salts between the cell and the nutrient matrix through active transport but only with a rather narrow range of optimal conditions. When the membrane is damaged through extreme or fluctuating temperatures, low moisture, extreme pH, the high population density of competing organisms, or high concentrations of dissolved salts, the active transport process diminishes; the nutrients in the cell are then lost and general cell functions, including metabolism and reproduction, are impaired. A damaged cell membrane will reform and begin to function properly in the presence of very low concentrations of certain steroidal materials contained in **BIOCAT™ DIGESTER**. The introduction of these compounds can thus broaden the range under which biological activity of the cells can be maintained, thereby increasing the metabolic processes. Thus applications of **BIOCAT™ DIGESTER** reduce the harmful effects of environmental stresses upon microorganisms, thereby accelerating a more complete decomposition of waste without producing malodors.

The hydrolysis of the steroids contained in **BIOCAT™ DIGESTER** yield glucose which, with the oxidation reactions of the Embden-Meyerhof pathway, provide a substantial amount of energy to the organism. Thus abundant energy source is trapped and stored by the enzymatic system of the cell and utilized to complete the cell life cycle. The energy can be stored and used by both aerobic and anaerobic bacteria to overcome stress conditions. As such, the bacteria have the extra impetus to complete the nitrogen, carbon and sulfur life cycles and chemical reactions are taken to completion yielding carbon dioxide or methane and not sulfide or ammonia gasses.

The energy-rich bacteria also respire and ferment more favorably, thereby decomposing the higher molecular weight organic molecules, converting suspended solids into settleable solids and reducing biochemical oxygen demand (BOD) of the wastewater.

BIOCAT™ DIGESTER also contains a broad range of enzymes and enzyme systems developed through fermentation. These enzymes and enzyme systems act as precursors



to essential biochemical reactions. Coming into contact with organic material they instantly cause a change in the outer molecular structure of the material and render the material more susceptible to organic reactions and attack by bacteria. The enzymes and enzyme systems in **BIOCAT™ DIGESTER** are each carefully formulated in their most stable form to promote optimum conditions of biological reaction rates.

BIOCAT™ DIGESTER also contains natural surfactants thus enhancing the wetting characteristics of aqueous systems and facilitating the dispersion of bacterial organisms and cells that improve the overall efficiency of a treatment system.

TYPICAL PROPERTIES

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| Specific gravity at 25° C (77°F) | 1.03 |
| pH | 5.4 +/- .4 |
| Color | Brown |
| Sarsaponin chemical structure | C ₂₇ H ₄₄ O ₃ |
| Weight | 8.8 lbs/g |

DIRECTIONS FOR USE

BIOCAT™ DIGESTER foams readily and should be added last to the system. If excessive foaming occurs, use 1 quart of anti-foam agent per 500 gallons of solution.

After dilution in water, the biological activity of **BIOCAT™ DIGESTER** will diminish after 48 hours. To stabilize the solution, add 1 oz. of copper sulfate per 10 gallons of solution.

CAUTION: In its undiluted form **BIOCAT™ DIGESTER** is corrosive to mild steel due to the low pH. Use poly tubing to transfer material.

SEWAGE PLANTS: Meter 1-3 ppm **BIOCAT™ DIGESTER** into plant influent to speed up digestion of dissolved and suspended solids throughout entire treatment plant and ponds.

SEWAGE DIGESTERS: For the first application, meter 10 ppm **BIOCAT™ DIGESTER** into the daily load transferred to digesters, at plant influent, to activate digestion, reduce scum and hydrogen sulfide and increase methane production. For maintenance thereafter, add 1 ppm into the daily load transferred.

DRAINS AND SEWER PIPELINES: Meter 1-3 ppm **BIOCAT™ DIGESTER** continually into beginning of trunk line flow to breakdown solids in line, clean out the lines and reduce sulfides. When side lines with high waste content flow into main line, treat beginning of side lines also.



C E R R O C O R P

WASTE PONDS: For quick activation, especially to remove scum blankets, spray product over pond at 4 ounces **BIOCAT™ DIGESTER** per 1,000 square feet of surface area. To continue accelerated digestion and reduce odors, meter 1-3 ppm **BIOCAT™ DIGESTER** into the pond inflow daily.

DAIRY MANURE PITS: To activate shallow pits, (4-5' in depth), spray **BIOCAT™ DIGESTER** across the surface of the pond at 4 ounces per 1,000 square feet of surface area. Product may be diluted in water to facilitate spray equipment. To activate deep pits (greater than 4-5' in depth), spray 1 quart of **BIOCAT™ DIGESTER** per one million gallons of waste. Maintenance is enhanced the earliest the product can be introduced into the system, but not later than at the point at which the inflow is being pumped into the pit. Daily maintenance of 1 ml **BIOCAT™ DIGESTER** /head/day.

MANURE, COMPOST, FRUIT AND VEGETABLE WASTES: Dilute 1-10 ppm **BIOCAT™ DIGESTER** in water and spray over surface of piles to reduce waste faster. When possible, spray into waste as it is being piled for maximum breakdown activation. Use 4 ounces of **BIOCAT™ DIGESTER** per ton of waste.

SEPTIC TANKS, OUTDOOR TOILETS, CAMPERS AND TRAILERS: Add 1 ounce of **BIOCAT™ DIGESTER** twice a week into each sink or toilet to clean lines and speed up digestion in tank. In outdoor toilets, dilute 1-10 ppm **BIOCAT™ DIGESTER** in water and spray over solids in tank.