



Executive Summary

VIGORMIN is a mixture of local and natural organo minerals that boost the removal rate of organic pollutants, adsorb heavy metals, coagulate suspended solids in wastewater. It can neutralize pH and significantly improve wastewater quality even without mechanical aeration. Vigormin solution is effective in neutralizing strong wastewater or septic odour, and strong decomposing or rotten odour in landfills or material recovery facilities.

The Problem

Based on UN-Habitat reports, 90% of all wastewater generated is released into the environment odorous and without effective treatment as current water treatment technologies generally involve high installation cost and power-intensive operations. It will be an irreversible environmental catastrophe if we will continue to allow untreated wastewater to be disposed of to the country's water supply in a manner dangerous to human health and damaging the natural environment.

The Solution

The application of Vigormin is an effective, low-cost, simplified, safe wastewater treatment that can significantly reduce TSS, VOC, BOD, and COD while neutralizing pH and odour even without the use of mechanical aeration. Vigormin can be used for:

- a. Treatment of septic/domestic wastewater from hotels, commercial establishments, condominiums
- b. Neutralization of strong, rotten, acrid odor from landfills, material recovery facilities, piggery, fish ports; and
- c. Treatment of wastewater with high organic load (wastewater from food processing industries, public markets, slaughter houses, and restaurants)

Competitive Advantage

Low-Cost, Odor-free treatment, Simple and Safe application

Target Market

The Primary Market consists of 2,015 listed tourism-related establishments and the 1,475 major accommodation establishments in eco-tourism destinations in the country. The 1,490 Municipalities and 144 cities all over the country are the major markets for the removal of odour in landfills and MRFs.

Low cost organo minerals for wastewater treatment and odour removal

Competition

Competitors: Enzymes, activated carbon, treatment chemicals

- Vigormin is a local product, commercially competitors are mostly imported.
- Vigormin is effective even without mechanical aeration. Most organic enzymes need mechanical aeration
- In general, each type of enzyme catalyzes only one type of reaction and will operate on only one type of substrate. Vigormin can be used effectively for varying types of wastewater.

Marketing and Sales

- / - Booth exhibits and distribution of product brochures/leaflets during convention of hotel managers, LGU administrators, pollution officers, condo administrators, & pollution control officers
- / - Technical services before and after sales

Business Model

Revenues will be mainly from product sales (wholesale price of P80/kg). 10% Hotel market penetration would mean a total of 19.2 MT or P1.44 M sales from 14 hotels alone. Annual Sales from the MRFs and landfills of 8 LGUs alone that dump 25 truckload of solid waste daily will mean 72 MT of Vigormin or annual sales of P5.76M.

Current Status

The application of Vigormin was field tested for septic water treatment and odour removal in MRFs. A pilot plant will be set up during the last quarter of 2015 and will be operational on the 2nd - 3rd Quarter of 2016. 2016 will be focused on plant optimization and product devt. activities. These will be followed by active product promotions and market validation.

CONTACT

Merlinda A. Palencia, ASEAN Ch.E., Ph.D.
Adamson University
Tel : 524-2011 loc 317
Fax : 522-2211
Mobile : 0917-899-1582
Email : merlinda_palencia@yahoo.com