



BIOTECHNOLOGIES

ENVIRONMENTAL ORGANIC SOLUTIONS



ENVIRONMENTAL ORGANIC SOLUTIONS

FOR A GREENER WORLD

# OUR COMPANY

IOS Biotechnologies™ was founded to promote the use of bioremediation (a technique that involves the use of microorganisms and other forms of life to consume and breakdown toxic waste) as an effective means to remove and degrade hazardous substances, oils and petroleum byproducts and control pollution in waste and secondary waters, as well as to treat purification and sanitation systems for industrial wastewater.

The basis of our work is the implementation and safe administration of biomass, using microorganisms that accelerate natural processes and return harmony to our system.

Our company and staff offer products targeted to the area of sanitation in agricultural industries, municipalities, communities, food industries, slaughterhouses, market squares and sanitary landfills, offering solutions to problems caused in the disposal of solid and liquid waste and improving the quality of life by providing a healthy and lasting environment for future generations.

With the help of **BIOTECHNOLOGY**, we offer solutions to problems that originate in industrial and agricultural production processes, industrial and domestic cleaning processes and in wastewater treatment systems.



# MISSION AND VISION

## OUR COMMITMENT

To contribute towards the health of our planet through our high-quality products and biotechnology by implementing comprehensive solutions that protect people, wildlife and the environment.

## OUR GOAL

To be recognized as leaders whose concern is to protect the environment by harmonizing environmental sustainability for the benefit of future generations.

## GUIDING PRINCIPLES

To project a service culture that is focused on our clients' satisfaction. To continuously seek excellence by being disciplined and attentive.

To foment in our associates an interest in ecology and the environment. To focus on our growth without neglecting our current advances.

To stand out from the competition with the passion and unfaltering support we offer our clients.



# BIOREMEDIATION AT ITS FINEST

Science has found a way to accelerate the degradation processes of organic matter, isolating natural microorganisms, selecting them, and granting them special capacities to be efficient and effective in that process.

**IOS** products only act on dead organic matter which means they are not harmful to animals or humans. They are products of directed action for each specific situation, among them; cleaning and decontamination of: fats, oils, fecal matter, detergents, hydrocarbons, cyanides, cyanates, phenols, alcohols, starch and cellulose.

## OUR SPECIALITY

Is the application of a "new technology" as an important aid to accelerate and optimize any system of biological purification of effluents (treated waters) and organic waste.





WE DO NOT ONLY OFFER PRODUCTS,  
WE PROVIDE SOLUTIONS!



Hygea Oleoclean® is a 100% organic and biodegradable product prepared with the highest biotechnology. It is a highly effective hydrocarbon degrader which separates the hydrocarbons organic compounds (hydrogen and carbon molecules) decomposing the links that make it up and making them completely harmless. It is composed of orange terpenes, bacterial cultures and other surfactants directing its action to degrading petroleum derivatives and other types of oils such as vegetable, animal, mineral and palm.

Its high concentration of microorganisms (CFU's) per cubic centimeter allows more dilutions making it more competitive and cost effective. Our safety data sheet (SDS) certifies Hygea Oleoclean® as a biodegradable product, allowing its final residue to be dumped into existing sewer and drainage networks, thus saving additional costs acquired by transferring the residue to an authorized facility making Hygea Oleoclean® an irreplaceable substitute for chemical-based detergents and degreasers.



## CHARACTERISTICS

- BACTERIAL COUNT: 1 X 10<sup>7</sup> U.F.C./GR.
- COMMERCIAL NAME: HYGEA OLEOCLEAN®
- SOLUBILITY: WATER
- APPEARANCE: CLEAR LIQUID
- COLOR: SLIGHTLY YELLOWISH
- AROMA: FRESH, CITRIC
- DENSITY AT 25°C: 0.85 – 0.56
- ALDEHYDE: 0.5 – 2%

# INDUSTRIES AND USES



1. PETROLEUM INDUSTRY
2. CONTINGENCY CONTROL
3. GAS STATIONS
4. STORAGE TANKS
5. TANKER TRUCKS
6. CONDUCTION LINES
7. SHIPYARDS AND PORTS
8. WATER TREATMENT PLANTS
9. ASPHALT AND ITS DERIVATIVES
10. DEGRADER OF MINERAL, VEGETABLE, ANIMAL AND PALM OILS AND FATS
11. AUTOMOTIVE
12. RESTAURANTS AND HOTELS

# hygea power 10x™

## INDUSTRIES AND USES

**Hygea Power 10x™** is a product created using the most advanced biotechnology consisting a synergistic and concentrated bacilli mixture that degrades organic matter containing starch, grease, protein and cellulose.

**Hygea Power 10x™** is an excellent deodorize that eliminates suppressor odors caused by decomposing organic waste. This product has the distinction of increasing the efficiency of other IOS products with which it is combined.

- SLAUGHTERHOUSES, DAIRY PRODUCT PLANTS, LIVESTOCK FACILITIES
- OXIDATION PONDS
- SEPTIC TANKS
- SANITARY FILLERS
- TRANSPORTATION SYSTEMS
- GAS STATIONS
- VETERINARY CLINICS
- HOTELS
- RESTAURANTS, BAKERIES, KITCHENS, CAFETERIAS, SUPERMARKETS

## CHARACTERISTICS

- BACTERIAL COUNT: 7 X 10<sup>9</sup> U.F.C/GR
- COMMERCIAL NAME: **HYGEA POWER 10X™**
- SOLUBILITY: WATER
- APPEARANCE: LIQUID
- COLOR: BEIGE
- EFFECTIVE PH. RANGE: 5.5 – 9.4
- PH: 8.2
- EFFECTIVE T: 5°C - 43°C
- AROMA: FLORAL



## COMPOSITION

Synergistic composition of bacteria, bacilli, macronutrients, micronutrients, enzymes and surfactants.

# hygea tabs

**Hygea Tabs** acts directly on grease, proteins and detergents retained in grease traps, septic tanks, sewage systems and other concentrations of wastewaters.

**Hygea Tabs** performs as a biodegradable digester that reduce maintenance frequency. Bacteria is released gradually and directly into the grease trap, septic tank, sewage networks and oxidation ponds.



## INDUSTRIES AND USES

- GREASE TRAPS
- BUTCHER SHOPS
- MEAT PROCESSING PLANTS
- SLAUGHTERHOUSES
- RESTAURANTS

In general, it can be used in any establishment that handles oils and fats of animal and vegetable origin. In the food industry, it helps reduce the treatment of drainage networks and to control and degrade vegetable and animal oils and fats. It reduces grease trap maintenance and the need to pump and treat between 50% - 80% while eliminating offensive odors.

## CHARACTERISTICS

- BACTERIAL COUNT: 5 X 10<sup>9</sup> U.F.C/GR
- COMMERCIAL NAME: **HYGEA TABS**
- APPEARANCE: TABLET
- COLOR: GREEN
- EFFECTIVE PH. RANGE: 5 – 9
- EFFECTIVE T: 5°C - 43°C
- AROMA: N/A

## COMPOSITION

Synergistic composition of bacteria, bacilli, macronutrients, micronutrients, enzymes and surfactants.



**Hygea Septic** contains enzymes and bacteria that are efficient in effectively degrading specific waste and odors originating from septic tanks and pumping stations.

**Hygea Septic** is used in establishments such as restaurants, hospitals and slaughterhouses, among others, that have septic tanks or other alternative wastewater treatment systems.

## INDUSTRIES AND USES

- RESTAURANTS
- HOSPITALS
- SCHOOLS
- SLAUGHTERHOUSES

It is also used to control odors and unclog obstruction in pipes.



## CHARACTERISTICS

- BACTERIAL COUNT: 3 X 10<sup>9</sup> U.F.C/GR
- COMMERCIAL NAME: **HYGEA SEPTIC**
- APPEARANCE: POWDER
- COLOR: NEUTRAL
- EFFECTIVE PH. RANGE: 5 - 9
- EFFECTIVE T: 10°C - 43°C
- AROMA: N/A

### COMPOSITION

Synergistic composition of bacteria, bacilli, macronutrients, micronutrients, enzymes and surfactants.



**Hygea 700™** is a mixture of bacterial cultures selected and specialized to obtain accelerated degradation of residential and industrial residual wastewaters.

**Hygea 700™** is used to clean these wastewaters by attacking light organic solids present in these waters. It is ideal for using in sewage treatment plants, septic tanks and lifting stations.



## INDUSTRIES AND USES

- DOMESTIC RESIDUAL WASTEWATERS

## CHARACTERISTICS

- BACTERIAL COUNT: 3 X 10<sup>9</sup> U.F.C/GR
- COMMERCIAL NAME: **HYGEA 700™**
- APPEARANCE: POWDER
- COLOR: DARK
- EFFECTIVE PH. RANGE: 6.0 - 8.5
- EFFECTIVE T: 10°C - 38°C
- SPECIFIC WEIGHT: 1
- PH: NEUTRAL
- AROMA: NATURAL

### COMPOSITION

Synergistic composition of bacteria, bacilli, macronutrients, micronutrients, enzymes and surfactants.



**Hygea 800™** is a mix of bacterial colonies selected and specialized to use in grease digesters to promote and accelerate its digestion.

**Hygea 800™** is used to clean residual domestic wastewaters by attacking heavy organic solids and grease present in these waters. It is ideal for using in sewage treatment plants, septic tanks and lifting stations.



## INDUSTRIES AND USES

- WASTEWATERS FROM FOOD INDUSTRIES - KITCHENS, RESTAURANTS, CASINOS, GREASE TRAPS
- PIG FARMS
- POULTRY FARMS

## CHARACTERISTICS

- BACTERIAL COUNT:  $5 \times 10^9$  U.F.C/GR
- COMMERCIAL NAME: HYGEA 800™
- APPEARANCE: POWDER
- COLOR: DARK
- EFFECTIVE PH. RANGE: 6.0 – 8.5
- EFFECTIVE T: 13°C - 38°C
- SPECIFIC WEIGHT: 1
- PH: NEUTRAL
- AROMA: NATURAL

## COMPOSITION

Synergistic composition of bacteria, bacilli, macronutrients, micronutrients, enzymes and surfactants.







**ios**<sup>TM</sup>  
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