

# HYDROAL™

INNOVATION IN SUSTAINABLE PEST AND ANIMAL CONTROL FOR  
INDUSTRIES AND THE ENVIRONMENT.

TRANSFORMING RESIDUES AND ORGANIC WASTES INTO A  
PRODUCT THAT MAY CONTRIBUTE TO SOIL AND  
NATURAL LAND TRANSFORMATION



# HYDROAL™

100% MINERAL TECHNOLOGY AND PRODUCT DESTINED TO RESUMATION OF  
ANIMALS ENTRAPPED IN HACCP DEVICES, ORGANIC MATERIALS  
AND RESUMATION TANKS FOR INDUSTRIAL USE

**ADAPTABLE TO ALL KIND OF DEVICES AND INDUSTRIES**



**ND Pharma & Biotech**

The Biopharmaceutical, Biotechnological and Global Chemical Company

# HYDROAL™

More than Alkaline Hydrolysis Technology

Based on Alkaline Hydrolysis Technology developed by ND Pharma & Biotech co., HYDROAL is much more than AHT. It's a system, product and technology based on AHT for an optimal performance of animal and HACCP organic material disposition with an added value to all those by-products that prior to this option were considered just unsafe, toxic, dangerous and in the vast majority of cases, noxious.

This process receive the actual name of RESUMATION.

HYDROAL™ is a Water-Technology/Mineral Concentrate that results in the ultimate technology and modern trend in HACCP animal and organic material disposition with a valued final product able to be used in soil and land enrichment, prior to crop/seed implement and growing.



## Environmental Impact of Other HACCP/Organics disposition systems

The environmental impact in shadow prices per Kg. of Organics disposal is about 60€/Kg with actual technology, plus the “paying for destroy” costs and Eco-Tax\*

HYDROAL™ IMPACT is under 3€/kg with the possibility of valuation of by-products instead of “paying for destroy” expenses and Eco-Tax\*

\*Where applicable

- No impact on Climate Change
- No Ozone Layer Depletion
- No Human Toxicity
- No Photochemical Oxides Formation
- Particulate Matter Formation
- No Ionising Radiation
- No Acidification
- Eutrophication (fresh water)
- Eutrophication (marine and sea)
- No Terrestrial Eco-toxicity
- No Freshwater Eco-toxicity
- No Marine Eco-toxicity
- Land Use (Agricultural)
- Land Use (Urban Spaces)
- Natural Land Transformation
- No Water Depletion
- No Fossil Depletion

## Eco-Technology for a Natural Transformation and Land Protection

Organics disposal technologies used actually are expensive, resources consuming and the valued byproducts remain in profit of those industries specialized in such different processing methods. Such industries use natural resources from incineration to enzymatic digestion, and many others, sometimes with high impact on the environment. HYDROAL™ uses a water and alkaline minerals based method – also known as alkaline hydrolysis – to reduce the organics sympathetically to ashes or a residual fluid. Nature also uses a form of alkaline hydrolysis to transform dead organic materials once buried.

The term Resumption was thoughtfully chosen using “Resuma” which is a Greek/Latin derivation for “rebirth of the body” ie resolving the organics dead tissues back to the basic organic components and its rapid and beneficial return to our eco-system to be re-used as nature had designed.

Organics only borrow those finite organic/inorganic building blocks during life and through this system we eventually return them. This happens with Resumption as with natural burial of dead organics. They are effectively lost /destroyed with incineration and other forms of processing, but at a higher costs or unfortunately by adding to greenhouse gasses and contributing to undesirable climate change.

Not what nature had intended in retaining the valuable building blocks of life.

The key differences are in reducing the ever increasing negative impact on our fragile environment...



### CREATING VALUE WITHIN YOUR COMPANY

Resumption has been independently shown to have the lowest and indeed little environmental impact at all compared to all other forms of organics/residual processing and disposal, including the most primitives and sometimes illegal, burial or chemical burial and cremation.

This Eco-consciousness may be enough to allow the individual to choose it.

This is especially applies for those industries showing a very acute environmental awareness and concern for our planet and those displaying policies and strategies that are consistent with recycle and green choices taken, that have the least impact on the environment, despite the nature of the industry. HYDROAL™ choice is the keen alternative to express that concern in a very positive manner and help the planet to survive. We are also concerned with that task.

## Working with Partners to Save Our Environment

ND PHARMA & BIOTECH focuses in developing pioneering and novel products, drugs, and molecules in specialist areas, from food to pharmaceutical industries, from Life Sciences to Crop Protection and Agriculture, Food Safety, Nutrition, and Industrial solutions.

Since our foundation, our research strategy has been to work closely to different "first line" institutions and operational centers that conduct investigation and research with and for us, under guidance and supervision of our clinical & scientific director's team. These institutional cooperation enables us to access innovative research and cutting edge discovery with substantial added value and immediate application to the developments under a relatively optimized costs. ND Pharma & Biotech maintains exclusive rights to all the intellectual property assets generated under such cooperation agreement and the research and development conducted.

Our market strategy, specially referred to pharmaceutical and therapeutic industry is to license our assets to leading international corporations and/or other industry operators (nutrition, food, feed, etc.) that are interested in further development and commercialization of some molecules and/or drugs.

## WE MUST ACT NOW TO PROTECT OUR PRECIOUS ENVIRONMENT FOR THE FUTURE OF OUR CHILDREN

Independent environmental analysis (Sustain) has shown that the use of HYDROAL™ Technology over other alternatives will reduce emissions of greenhouse gases by approximately 35%. An Independent Study realized within the UK demonstrated that HYDROAL™ had the lowest overall impact on the environment of all methods of organic disposal including incineration, burial, chemical burial, freeze drying and enzymatic/recovery digestion. The energy needed for the full process in the form of electricity and gas is less than one fifth to tenth less of the energy required for a typical processing.

Significant levels of highly toxic compounds coming from typical processing systems are emitted from such industries into the environment. Getting into our natural water those compounds are absorbed by plant-life, eaten by small fish which are eaten by larger fish and then we eat the fish. In other hand, such compounds may be enter in the animal nutrition cycle creating toxic and/or danger byproducts that once eaten may cause several diseases and illnesses within the human body.

HYDROAL™ produces no airborne emissions and the solid leftover materials that may be toxic will be safely recycled into inert compounds. Final valued byproduct results into and Innocuous nearby- sterile liquid that can be released from our process and safely returned via water treatment facilities to rivers and seas and ultimately via the natural hydrological water cycle back to earth, or used as natural land transformation compound for soil enrichment and land recovery.

There are now over 7 billion human beings living on our small planet and increasing fast. The introduction of this choice of eco-friendly disposition has the potential to ease the pressure of other systems and methods that are willing to have the largest negative impact on our environment.

These are all very powerful reasons for change but what do others think...



Eco-Friendly Technology  
For Planet Sustain and Environmental Protection Live  
**HYDROAL™** [info@ndpharmabiotech.com](mailto:info@ndpharmabiotech.com)

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# HYDROAL™

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