

Organica

Waste Water Treatment



Remarkable products from Nature's own laboratory





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BIO-P REMOVAL SYSTEM

FOR BIOLOGICAL PHOSPHATE REMOVAL IN WASTE WATER
STREAMS AND AQUATIC ENVIRONMENTS

Active Ingredients

Organica Bio P Removal contains adapted micro-organisms specifically formulated for use in waste-water systems to remove phosphate biologically even in low strength effluent.

Description

Organica Bio P Removal is composed of aerobic and facultative anaerobic micro-organisms. These micro-organisms have been carefully selected from nature and adapted for optimum performance in most treatment plants. Organica Bio P is more effective in removing phosphate than naturally-existing bacterial strains. This means more consistent and more balanced treatment performance with fewer system upsets.

Regular use of Organica Bio P establishes and maintains a biomass which is resistant to the effects of organic inhibitors commonly found in wastewaters.

Bio P Removal system has been scientifically proven to remove up to 92% of phosphate within 72 hours and then when correctly applied can keep phosphate levels effectively within consent.

Advantages

- Removes Phosphate in weak effluent conditions
- Cost effective
- Easy to apply
- No harmful chemicals
- Rapid results
- Tolerates changes in conditions





Suggested Application Rate

- Initial dose: 10 ppm Organica Bio P Removal System for first 3-5 days
- Maintenance dose: 2 ppm Organica Bio P Removal System daily

Organica Bio P Removal system is supplied as water-soluble powders and suitable with automated dosing machines. Actual doses will depend upon specific wastewater conditions and phosphate levels.

For optimal results the wastewater treatment system should meet the following conditions:

	OPTIMUM	MINIMUM	MAXIMUM
Influent pH	7.0	5.0	9.0
Dissolved oxygen, ppm	2.0+	1.0	---
C/N/P ratio	100/10/2	100/5/1	100/20/4
Temperature, C degrees	30(86 F)	10(50 F)	40(104 F)
Toxic metals, ppm (e.g., hex., chromium)	0	0	2

Storage and Disposal

- Shelf life: Dry- 2 years.
- Store in original container.
- Store sealed in a dry place at room temperature not exceeding 100 degrees F.
- DO NOT ALLOW PRODUCT TO BECOME WET OR MOIST PRIOR TO USE. DO NOT FREEZE.

Cautions

- Inhalation and direct skin contact should be avoided. Dust protection for eyes, nose and mouth should be used. In the event of direct skin or eye contact, flush the affected area with water. If irritation persists, contact your physician.
- ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET FOR SPECIFIC INSTRUCTIONS.

The information contained herein is based on test information obtained by Organica. This data is believed to be reliable, but field conditions may vary and therefore no warranty or performance guarantee should be implied from such information.

**For more information on *Bio P Removal System*,
Call (0)151 653 0253 or fax (0)151 653 0353**

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BIOCHEMICAL OXYGEN RELEASE SYSTEM (SRO2)

FOR PROVIDING A SOURCE OF OXYGEN TO ENHANCE THE
GROWTH OF AEROBIC BACTERIA

Active Ingredients

Proprietary blend of biochemicals formulated to provide a continuous source of oxygen for microbial processes

Description

Organica's Biochemical Slow Release Oxygen System was developed to enhance bioremediation applications. The system provides a continuous supply of oxygen to many oxygen dependent processes such as composting, bioremediation of greases and oils and wastewater treatments. It is extremely useful for processes where mechanical aeration is not easily available or feasible. The system impedes hydrogen sulphide odours as well as other volatile doors in municipal wastewater treatment plants by enhancing the aerobic reaction and the stabilisation of pH. The system also suppresses the formation of new hydrogen sulphide by curbing anaerobic processes. Due to its slow release properties, the system controls odours over an extended period of time with a single application.

Advantages

- Slow release oxygen.
- Lasts for weeks to months depending upon application.
- Enhances aerobic microbial growth.
- Stimulates oxygen dependent processes.
- Controls and eliminates odour.





Suggested Application Rate

To treat 1000 tons waste stream per day, use the following guideline to achieve desired dissolved oxygen (DO) increase

Increase D.O level	Kilos Product Required/Day
0.5	3
1	6
2	12
4	24

Storage and Disposal

- Shelf life: Dry- 1 year.
- Keep container tightly sealed.
- Store in original container.
- Store in a cool dry place and avoid direct sunlight.
- Dispose of in accordance with Federal, State, and Local regulations.

Cautions

- **EYES:** Moderately irritating to the eyes. Eye protection should be worn while working with Organica's **Biochemical Oxygen Release System**.
- **SKIN:** Dermal exposure may cause mild irritation of skin. Avoid contact.
- **ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET FOR SPECIFIC INSTRUCTIONS.**
- Wash hands thoroughly after using.
- This product has not been tested for its impact on aquatic life and therefore no warranties with respect to such impact are expressed or implied.
- Due to the product's slow oxygen releasing property, avoid contact with combustible materials.
- It is the responsibility of the customer to take appropriate precautions.

The information contained herein is based on test information obtained by Organica. This data is believed to be reliable, but field conditions may vary and therefore no warranty or performance guarantee should be implied from such information.

For more information on **Biochemical Oxygen Release System**

Call (0)151 653 0253 or fax (0)151 653 0353

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BIODEGRADABLE OIL ABSORBENT

Active Ingredients

Proprietary blend of soil based micro-organisms on an inert absorbent.

Description

Organica's Oil Absorbent is a unique new, recyclable oil absorbent. In most cases oil and fuel spills are cleared by absorbing the liquid onto a medium such as sand or earth, sweeping up and then disposing of the product as a hazardous waste. The costs for removal and landfill are expensive and will continue to rise. Using the recyclable Oil Absorbent, Organica have devised a method, which reduces the frequency of removal and landfill hence saving money.

Organica's Oil Absorbent contains a proprietary blend of microbes coated onto the surface of the absorbent medium. The absorbent can absorb upto 130% of its own mass in liquid. Once the product has been applied to a spill, the material is placed in a drum and left for the microbes to digest the oil or fuel. There is an obvious price advantage in reducing the frequency of landfilling hazardous waste, but there is an additional advantage in that the hydrocarbons from the oil or fuel will be more rapidly degraded after landfill as the action of the microbes continues to work.

Benefits

- Significantly reduces landfill costs
- Safe to use
- Easy to use, no special machinery required
- Environmentally friendly





Suggested application rate

- Place at least 3-5 times the volume of Organica's Oil Absorbent on the spill to be treated.
- Sweep into steel drum and mix well with 2/3 the volume of water
- Leave to digest.
- Product may be used at any time to absorb new spills provided maximum absorption is not exceeded
- If the spill is large mix with new granules.
- It is possible for product to dry without harming the activity

Appearance

- | | |
|-------------------------|------------------------------------|
| ■ Oil Absorbent Regular | 2-5mm granules |
| ■ Oil Absorbent Powder | <1mm |
| ■ Colour | light to buff brown. |
| ■ Density | approx. 0.5-0.6 Kg/dm ³ |

Storage and Disposal

- Shelf life : 2 years
- Keep container tightly sealed
- Store in original container
- Store in a cool, dry place and avoid direct sunlight
- Dispose in accordance with UK and Local regulations

Cautions

- IN EYES. Moderately irritating to eyes. Eye protection should be worn while working with Recyclable Oil Absorbent
- ON SKIN. Dermal exposure may cause mild irritation of skin. Avoid contact.
- ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET FOR SPECIFIC INSTRUCTIONS.
- Wash hands thoroughly after using
- It is the responsibility of the customer to take appropriate precautions.

Safety Considerations

The product itself is non-hazardous to animals and humans although general safety considerations to handling of powders should be applied when using the product. When the product has absorbed the oil or fuel. Care should be taken to treat it as a potential fire risk. This is minimised by using a special steel drum with lid. The drum is appropriately labelled for no naked flames as would be normal in any forecourt situation. The risk is further minimised by the fact that the product with absorbed fuel is covered with water immediately after sweeping up. The information contained herein is based on test information obtained by Organica. This data is believed to be reliable but field conditions vary and therefore no warranty or performance guarantee should be implied from such information.

**For more information on *Biodegradable Oil-Absorbent*,
Call (0)151 653 0253 or fax (0)151 653 0353**

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FORMULA 33

Microbial Formulation

GREASE PROBLEMS?

FOR USE IN: *Municipal and municipal/industrial sewer lines, lift stations, scum pits, grease traps, or other collection systems*

DESCRIPTION

ORGANICA FORMULA-33 contains adapted microorganisms specifically formulated for use in municipal and food production waste-water collection systems. **ORGANICA FORMULA-33** is composed of *aerobic and facultative anaerobic microorganisms*. These microorganisms have been carefully selected from nature and adapted for optimum performance in diverse waste streams. **ORGANICA FORMULA-33** contains organisms which produce high levels of lipase, amylase and protease for degradation of grease, fats, oils, starch protein and cellulose. **ORGANICA FORMULA-33** also degrades detergents, surfactants, phenolics, waxes and hydrocarbons, all of which are present in municipal waste collection systems. **ORGANICA FORMULA-33** contains no added enzymes, wetting agents, emulsifiers or surfactants. **ORGANICA FORMULA-33's** degradation process produces harmless water, carbon dioxide and biodegradable microbial protoplasm, a source of food for higher life forms.

BENEFITS

Benefits of treatment with **ORGANICA FORMULA-33** include: Control of grease build-up in sewer lines, which dramatically improves flow, reduces maintenance costs, lowers pipe corrosion due to sulphate, helps control noxious odours and eliminates the need for personnel to handle unsafe chemicals. Grease build up in lift stations, scum pits, and other collection systems is significantly reduced which means easier and less frequent maintenance and clean-out. Proper use of **ORGANICA FORMULA-33** will improve treatment plant performance and establish and maintain a biomass in the collection system which is resistant to the effects of organic inhibitors commonly found in waste waters. **ORGANICA FORMULA-33** is packed in water-soluble bags requiring no mixing, measuring or pre-soaking. **ORGANICA FORMULA-33** is completely safe for handling when used as directed and is the strongest formula on the market.

PRODUCT SPECIFICATION

FORM:	Free-flowing, granular powder
COLOUR:	Buff to brown
SPECIFIC GRAVITY:	0.5-0.7
CONTENTS:	58 strains of microorganisms and growth stimulants (Minimum plate count 5 billion cfu per gram)
STORAGE:	Store sealed in a dry area at room temperature not exceeding 40°C DO NOT ALLOW PRODUCT TO BECOME WET OR MOIST PRIOR TO USE. DO NOT FREEZE.
CAUTION:	When used in bulk form, inhalation and direct skin contact should be avoided. Dust protection for eyes, nose and mouth should be used. In event of direct skin or eye contact, flush the affected area with water. If irritation persists, contact your doctor.





DIRECTIONS FOR USE

1. Do not add to the treatment system at a location where toxic or otherwise adverse pH, dissolved oxygen or temperature conditions may exist at peak levels.
2. Application Rates: Consult your Organica representative prior to use for specific instructions.
3. In many cases, it is best used in conjunction with other fine bacterial aids from Organica. Consult your Organica representative with your specific requirements.

For optimal results the waste water and treatment system should meet the following conditions:

	OPTIMUM	MINIMUM	MAXIMUM
Influent pH	7.0	6.0	9.0
Dissolved Oxygen, ppm	2.0+	1.0+	-
C/N/P ratio	100/10/1	100/5/1	100/20/1
Temperature, °C	30 (86F)	10 (50F)	40 (104F)
Toxic Metals, ppm (e.g. hex chromium)	0	0	2

AVAILABILTY

11.36 Kg (25LB) plastic pails and 45Kg polythene-lined fibre drums. Packaged in 227g water soluble bags or bulk.

Guaranteed? You Bet!

Follow the program-
It works or it's FREE.

Call for details, references, or a free video tape
All you can lose is your grease!

For more information on *Formula 33*,
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FORMULA 33

Microbial Aid for Waste Water Treatment Systems

FOR USE IN: *Municipal and municipal/industrial treatment plants, meat processing and rendering plants, dairies, food processing and packaging plants.*

DESCRIPTION

ORGANICA FORMULA-33 contains adapted micro-organisms specifically formulated for use in municipal and food processing waste-water systems.

ORGANICA FORMULA-33 is composed of *aerobic and facultative anaerobic micro-organisms*. These micro-organisms have been carefully selected from nature and adapted for optimum performance in most treatment plants. **ORGANICA FORMULA-33** is more effective in degrading undesirable proteins, fats and carbohydrates than naturally existing bacterial strains. This means more consistent and more balanced treatment performance with fewer systems upsets. The microbial protoplasm produced is a biodegradable source of food higher life forms.

ORGANICA FORMULA-33 contains a natural microbial growth stimulant and co-ordination compound which increases the rate of microbial growth and the ability of the micro-organisms to use nutrients. **ORGANICA FORMULA-33** organisms secrete significantly higher enzyme concentrations than unstimulated micro-organisms resulting in improved waste digestion rates. Thus systems may be upgraded without the addition of new equipment.

ORGANICA FORMULA-33 can alter the physical structure of organic suspended solids. This results in *more efficient flocculation* and more rapid settling of organic suspended solids so vital to the operation of activated sludge plants and activated bio-filters. **ORGANICA FORMULA-33** improves settling by liquefying and breaking down low density organic matter and by destroying organic molecules which bind water into floc particles.

Regular use of **ORGANICA FORMULA-33** establishes and maintains a biomass which is resistant to the effects of organic inhibitors commonly found in wastewaters. **ORGANICA FORMULA-33** increases the efficiency of settling systems and eases sludge handling and disposal.

Synthetic detergents and other surfactants are commonly found in municipal and food processing waste waters. These compounds reduce oxygen transfer rates. Reductions in oxygen transfer rate reduce the ultimate capacity of the system to handle wastes. **ORGANICA FORMULA-33** is specifically formulated to degrade synthetic detergents. **ORGANICA FORMULA-33** thereby allows vital oxygen to be transferred to the biomass at more rapid rates. This increases waste load handling capacity and system stability under higher than normal load conditions.

ORGANICA FORMULA-33's specific, adapted micro-organisms secrete lipase enzymes in significant quantities. *Trapped lipids are enzymatically hydrolysed, liquefied and solubilised*. Solubilised solids are more readily broken down and degraded by the biomass. *Mats or "cakes" in the digesters are eliminated* and grease deposits loosened and removed.

Greases and fats also tend to be surface active and thus interfere with the oxygen transfer. The use of **ORGANICA FORMULA-33** in the presence of large quantities of grease and fat generally increases oxygen transfer efficiency and thus plant capacity.

High soluble BOD and carbohydrate containing waste-waters (such as from breweries, starch and corn milling, potato plants etc) have a tendency to propagate hardy populations of filamentous microbes. **ORGANICA FORMULA-33**





can be used to disfavour the propagation of the filaments and improve solids settling so vital to proper system aeration.

DIRECTIONS FOR USE

1. Do not add to the treatment system at a location where toxic or otherwise adverse pH, dissolved oxygen or temperature conditions may exist at peak levels.
2. Application Rates: Consult your Organica representative prior to use for specific instructions.
3. In many cases, it is best used in conjunction with other fine bacterial aids from Organica. Consult your Organica representative with your specific requirements.

For optimal results the waste water and treatment system should meet the following conditions:

	OPTIMUM	MINIMUM	MAXIMUM
Influent pH	7.0	6.0	9.0
Dissolved Oxygen, ppm	2.0+	1.0+	-
C/N/P ratio	100/10/1	100/5/1	100/20/1
Temperature, °C	30 (86F)	10 (50F)	40 (104F)
Toxic Metals, ppm (e.g. hex chromium)	0	0	2

AVAILABILITY

11.36 Kg (25LB) plastic pails and 45Kg polythene-lined fibre drums. Packaged in 227g water soluble bags or bulk. Liquid formulation in 10 and 25 Litre packs.

Guaranteed? You Bet!

Follow the program-
It works or it's FREE.

For more information on *Formula 33*,
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Formula-33 Specifications

The Formula-33 bacteria formulation contains the following strains of bacteria with at least 5 billion organisms per gram:

<u>Bacillus subtilis</u>	13 strains
Selected for high lipase, protease, amylase and carbohydrates production broad pH range 4-9.5	
<u>Bacillus megaterium</u>	4 strains
Produce broad range of enzymes	
<u>Bacillus thurengesis</u>	6 strains
High protease lipase amylase and hydrocarbon degrading enzymes at broad pH range.	
<u>Bacillus stearothermophilus</u>	3 strains
High temperature broad range enzymes producer.	
<u>Bacillus lichenformis</u>	5 strains
Neutral, acid alkaline protease, amylase, lipase hydrocarbon, and other organic pollutant degrader.	
<u>Bacillus polymyxa</u>	4 strains
Degrades aliphatic, aromatic hydrocarbons, phenols, alcohols and other organic solvents; degrades ligno-cellulose, cellulose and other material.	
<u>Bacillus pumulis</u>	2 strains
Broad range of organic substrates, phenols, alcohols, oils, fats and greases.	
<u>Lactobacillus sporogenes</u>	2 strains
Works under acidic environment bio-degrades dairy and waste, and straw.	
<u>Bacillus sp</u>	5 strains
Hydrocarbon and petroleum waste digesters.	





Sacchormyces cerevisiae

Degrades various carbohydrates and fat at acid pH.

2 strains

Pseudomonas fluorescens

Broad range aliphatic, aromatic compounds.

5 strains

Pseudomonas stutzeri

Acclimated to nonnylphenol compounds for degradation of detergents and surfactants.

3 strains

Lactobacillus aeruginosa (non pathogenic)

Adapted to high oil and grease levels.

1 strain

Cellulomonas uda

With enhanced cellulase producing capabilities to degrade cellulose wastes.

1 strain

Micrococcus sp

For hydrocarbon and wax degradation.

1 strain

Thiobacillus novellus

For sulphide (H₂S) degradation and noxious odour reduction.

1 strain

There are no added enzymes, solvents, wetting agents, or surfactants.

The product is packed in 50 eight ounce water soluble bags per plastic pail.

For more information on *Formula 33*,
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MICROBIAL HYDROCARBON DEGRADER

FOR REFINERY WASTE, MAJOR OIL SPILLS, AND OTHER CHEMICAL
INDUSTRIAL WASTE

Active Ingredients

A proprietary blend of naturally occurring microbes and biochemical accelerators used to degrade various hydrocarbon and organic chemical, which may be toxic.

Description

Organica's Microbial Hydrocarbon Degradar has been specifically formulated for oil field and refinery wastes. For use in waste treatment systems, oil sludge farming operations and spill clean-up situations. Designed to deal with wastes resulting from pumping, distilling, fractionation, alkylation and polymerisation processes where wastes are usually of large volume containing high suspended and dissolved solids, surfactants, oil, wax, sulphides, mercaptans, phenolic compounds, cresylates, and other hydrocarbon based compounds.

Organica's Microbial Hydrocarbon Degradar is a formulation of naturally occurring microbes and biochemical accelerators. The unique combination of cultures in *Organica's Microbial Hydrocarbon Degradar* rapidly degrades various hydrocarbons and organic chemicals which may be toxic, inhibitory or bio-resistant to natural microbial populations. Destabilisation of biological systems such as changes in incoming waste concentrations, composition of waste, pH, temperature and nutrient level can be mitigated with the regular addition of *Organica's Microbial Hydrocarbon Degradar* to the wastewater and waste disposal systems. The microbial protoplasm produced is a biodegradable source of food for higher life forms.

Organica's Microbial Hydrocarbon Degradar, by virtue of its unique formulation, is also well suited to augment the performance of oily sludge farming operations and hazardous spill clean up operations. *Organica's Microbial Hydrocarbon Degradar* should be applied in conjunction with an application augmentation program provided by an Organica engineer.

Advantages

- Highly effective petroleum degrader.
- Adds nutrients to soil as it breaks down the oil.





Suggested Application Rate

1. Disperse one part **Organica's Microbial Hydrocarbon Degradar** in eight to ten parts warm water (about 1Lb per gall). The water should be about 80-100°F(25-40°C). Allow to stand for one to two hours with occasional stirring. Apply liberally on the spill area.
2. Do not add **Organica's Microbial Hydrocarbon Degradar** to the treatment system at a location where toxic or otherwise adverse pH, dissolved oxygen or temperature conditions may exist at peak levels.

For optimal results the wastewater treatment system should meet the following conditions:

	OPTIMUM	MINIMUM	MAXIMUM
Influent pH	7.0	5.0	9.0
Dissolved oxygen, ppm	2.0+	1.0	---
C/N/P ratio	100/10/1	100/5/1	100/20/1
Temperature, C degrees	30(86 F)	10(50 F)	40(104 F)
Toxic metals, ppm (e.g., hex., chromium)	0	0	2

Storage and Disposal

- Shelf life: Dry- 2 years.
- Store in original container.
- Store sealed in a dry place at room temperature not exceeding 100 degrees F.
- DO NOT ALLOW PRODUCT TO BECOME WET OR MOIST PRIOR TO USE. DO NOT FREEZE.

Cautions

- Inhalation and direct skin contact should be avoided. Dust protection for eyes, nose and mouth should be used. In the event of direct skin or eye contact, flush the affected area with water. If irritation persists, contact your physician.
- ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET FOR SPECIFIC INSTRUCTIONS.

The information contained herein is based on test information obtained by Organica. This data is believed to be reliable, but field conditions may vary and therefore no warranty or performance guarantee should be implied from such information.

**For more information on *Microbial Hydrocarbon Remover*,
Call (0)151 653 0253 or fax (0)151 653 0353**

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NATURAL AMMONIA REDUCER

FOR THE REDUCTION OF AMMONIA LEVELS IN AQUEOUS
ENVIRONMENT

Active Ingredients

A proprietary blend of naturally occurring microbes, enzymes, and growth stimulators for ammonia oxidizing bacteria.

Description

Organica's Ammonia Reducing Product is an alternative to chemicals for reduction of ammonia levels in wastewater, pond, lake, and other aquatic environment. It is a propriety blend of microbes in a unique formulation with an ability to remove nitrogenous compounds (e.g. ammonia, nitrate, and nitrite) from aqueous environment in presence of carboneous material. This product has been clearly demonstrated to remove significant amounts of ammonia, nitrate, nitrite, and other organic nitrogenous wastes in presence of high B.O.D. material. Routine use of the product eliminates strong ammonia odours from the environment.

Advantages

- Provides rapid removal of ammonia, nitrite, and nitrate.
- Effective in presence of high B.O.D. waste.
- Enhances stability of wastewater treatment systems.
- Effective under wide range of conditions.



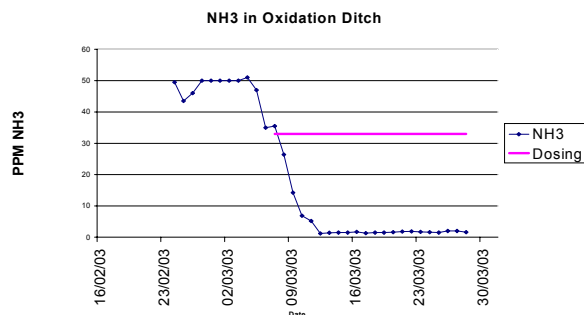


Suggested Application Rate

For all applications:

For first week, use 2.5-5 Kg. per 100,000 gallons water daily.
Thereafter, apply 1-2Kg. of product per day based on desire result.

Results on Sewage Treatment Plant



Storage and Disposal

- Shelf life of liquid: 1 year.
- Keep container tightly sealed.
- Store in original container.
- Store in a cool dry place.
- Avoid direct sunlight.
- Dispose in accordance with Federal, State, and Local regulations.

Cautions

- **EYES:** Moderately irritating to the eyes. Eye protection should be worn while working with *Organica's Natural Ammonia Reducer*.
- **SKIN:** Dermal exposure may cause mild irritation of skin. Avoid contact.
- ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET FOR SPECIFIC INSTRUCTIONS.
- Wash hands thoroughly after using.
- It is the responsibility of the customer to take appropriate precautions.

The information contained herein is based on test information obtained by Organica. This data is believed to be reliable, but field conditions may vary and therefore no warranty or performance guarantee should be implied from such information.

**For more information on *Natural Ammonia Reducer*,
Call (0)151 653 0253 or fax (0)151 653 0353**

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OXYFOAM

Microbial Formulation

FOR USE IN: *Municipal and municipal/industrial sewer lines, lift stations, scum pits, grease traps, or other collection systems*

DESCRIPTION

OXYFOAM is a unique formulation to break down sewer grease and fat and overcome the foul odours that arise from slow moving sewer lines, grease pits and traps. **OXYFOAM** contains selected slow and fast release sources of oxygen combined with adapted micro-organisms specifically formulated for use in municipal and food production waste-water collection systems. The result is that the fast release oxygen quickly reduces the odour forming compounds giving an immediate benefit whilst the combination of the slow release oxygen source and the microbial formulation work on the cause of the problem. **OXYFOAM** is packed in water-soluble bags requiring no mixing, measuring or pre-soaking. **OXYFOAM** is completely safe for handling when used as directed and is the strongest formula on the market.

Advantages

- Reduces noxious odours
- Control of grease build-up in sewer lines
- Control of grease build-up in pumping stations
- Less frequent addition of product
- Improves flow, reduces maintenance costs
- Lowers pipe corrosion due to sulphate
- Eliminates the need for personnel to handle unsafe chemicals
- Easier and less frequent maintenance and clean-out



PRODUCT SPECIFICATION

FORM:	Free-flowing, granular powder
COLOUR:	White/brown
SPECIFIC GRAVITY:	0.5-0.7
CONTENTS:	Fast and slow release sources of oxygen, micro-organisms and growth stimulants (Minimum plate count 5 billion cfu per gram)
STORAGE:	Store sealed in a dry area at room temperature not exceeding 40°C DO NOT ALLOW PRODUCT TO BECOME WET OR MOIST PRIOR TO USE. DO NOT FREEZE. DO NOT STORE NEAR NAKED FLAMES.
CAUTION:	When used in bulk form, inhalation and direct skin contact should be avoided. Dust protection for eyes, nose and mouth should be used. In event of direct skin or eye contact, flush the affected area with water. If irritation persists, contact your doctor. As the product is a source of oxygen do not store near naked flames. See full Material Safety Data Sheet.

DIRECTIONS FOR USE

- Do not add to the treatment system at a location where toxic or otherwise adverse pH, dissolved oxygen or temperature conditions may exist at peak levels.
- Application Rates: Consult your Organica representative prior to use for specific instructions.
- In many cases, it is best used in conjunction with other fine bacterial aids from Organica. Consult your Organica representative with your specific requirements.

For optimal results the waste water and treatment system should meet the following conditions:

	OPTIMUM	MINIMUM	MAXIMUM
Influent pH	7.0	4.5	11.5
C/N/P ratio	100/10/1	100/5/1	100/20/1
Temperature, °C	30 (86F)	10 (50F)	40 (104F)
Toxic Metals, ppm (e.g. hex chromium)	0	0	2

AVAILABILTY

10 Kg plastic pails and 45Kg polythene-lined fibre drums. Packaged in 200g water soluble bags or bulk.

For more information on *Oxyfoam*,

Call (0)151 653 0253 or fax (0)151 653 0353

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PIGGERY WASTE TREATMENT PRODUCT

Active Ingredients

Proprietary blend of naturally occurring biocatalysts and non-ionic solutions with growth stimulating nutrients.

Description

Organica's Piggery Waste Treatment Product is a unique formulation containing biodegradable organics compounds. It was developed to facilitate cost effective management of piggery effluents. This product liquefies and degrades organic sludge that normally clogs effluent disposal systems. Its superior degradation properties enable it to decompose nitrogenous wastes that help to reduce BOD and to control odours in pig sheds and in slurry storage area. When used as a fertiliser the product enhances growth and reduces leaching of phosphate and nitrate. The product can reduce nitrogen applications by 25% without reduction in the quality of crop.

Advantages

- Quickly reduces BOD and liquefies solids
- Lower effluent handling and disposal costs
- Reduces odour from ammonia hydrogen sulphide and volatile fatty acids
- Can be used as a fertiliser
- Reduces leaching of phosphate and nitrate
- Biodegradable and environmentally friendly
- Simple, safe and easy to apply





Suggested Application

For first application of dry powder:

- Use 1-1.5Kg of product per 500kg of piggery waste
- Make a slurry with the Treatment Product and water

For Subsequent applications:

- Use 1-1.5Kg of product per 500kg of piggery waste

For application of liquid product:

- In small areas dilute concentrate at a rate of 1 litres of product to 20 litres of water
- Apply 5 litre of mix to 1 cubic metre organic matter using 5-25 litre hand spray tank
- In large areas dilute concentrate at a rate of 2 litres of product to 40 litres of water
- Apply to 40 cubic metres or more using a large capacity spray tank with orchid gun

Typical Results:

Crop	Reduction in Leached Nitrogen	Reduction in Leached Phosphorous
Corn	75%	45%
Tomatoes	68%	55%
Grass	73%	45%

Storage and Disposal

- Shelf Life: dry - 2 years, liquid - 12 months
- Keep container tightly closed
- Store in original container
- Store in a cool dry place and avoid direct sunlight
- Dispose in accordance with Federal, State, and Local regulations

Caution

- **IN EYES.** Moderately irritating to the eyes. Eye protection should be worn while working with Organica's Compost Activator.
- **ON SKIN.** Dermal exposure may cause mild irritation of skin. Avoid contact.
- **ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET FOR SPECIFIC INSTRUCTIONS.**
- Wash hands thoroughly after using.

The information contained herein is based on test information obtained by Organica. This data is believed to be reliable, but field condition may vary and therefore no warranty or performance guarantee should be implied from such information.

For more information on *Piggery Waste Treatment*,
Call (0)151 653 0253 or fax (0)151 653 0353

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PORTABLE POTTY TREATMENT

Active Ingredients

Naturally occurring microbes with high levels of enzymatic activity blended with various proprietary odour control.

Description

Organica's Portable Potty Treatment is a natural solution for portable toilet waste and odour control. Organica's proprietary microbes work continuously to reduce the accumulation of solid waste and odours. Enzymes such as, amylases, proteases, lipases and cellulases, biodegrade most of the solids found in the potties and liquefy the remaining solids for easy pumping. This product is much safer and more effective than formaldehyde and other harsh chemicals.

Advantages

- Natural microbes with long shelf life
- Controls unpleasant odours
- Reduces frequent pumping out
- Safe to humans and animals
- Biodegradable and environmentally friendly





Suggested Application Rate

FOR AVERAGE SIZE PORTO-POTTY:

Add 100ml of Organica's Portable Potty Treatment and 200ml of water before first using the potty. Re-apply after the potty is emptied.

Storage and Disposal

- Shelf life: 2 years.
- Store in original container.
- Store sealed in a dry place at room temperature not exceeding 37 degrees C.
- DO NOT ALLOW PRODUCT TO BECOME WET OR MOIST PRIOR TO USE. DO NOT FREEZE.

Cautions

- Inhalation and direct skin contact should be avoided. Dust protection for eyes, nose and mouth should be used. In the event of direct skin or eye contact, flush the affected area with water. If irritation persists, contact your physician.
- ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET FOR SPECIFIC INSTRUCTIONS.

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SEPTIC TANK PRODUCT

Active Ingredients

Proprietary blend of naturally occurring organisms with the ability to produce large quantities of cellulase, protease, lipase, and other essential enzymes for biodegradation of common septic tank organics.

Description

Organica's Septic Tank Product has been formulated to produce maximum degradation of organic compounds commonly found in septic systems. This rapid reduction is achieved by selecting specific micro-organisms that have the ability to produce beneficial digestive enzymes which are able to survive under the conditions commonly found in septic tanks of cesspools.

Septic Tank Product is an all natural, environmentally friendly septic tank and cesspool maintenance product. It is safe for use in institutional settings or for home use. With regular use it prevents clogs from occurring in your septic system. It can reduce the cost of septic tank and cesspool maintenance because its digestive enzymes breakdown organic waste such as grease, fat, paper, starch, and protein. It is non-corrosive to pipes, it is an effective alternative to leading caustic products that damage pipes and the environment. Independent lab results have proven that Septic Tank Product contains higher concentrations of beneficial enzymes.

Advantages

- Contains only naturally occurring micro-organisms
- Non-caustic, non-corrosive, non-volatile, and non-flammable
- Free of acids, lyes, petroleum solvents or other harsh chemicals
- Completely biodegradable and environmentally friendly





Suggested Application Rate

All applications of **SEPTIC TANK Product** require it to be flushed down plumbing outlets at night with water. Each week rotate to a different outlet to apply product, e.g. Toilet, Bath, Sink, Basin, etc

SEPTIC SYSTEMS (Maintenance Program):

Powder - Every month place one water soluble bag into the septic tank.

Liquid - Every week pour 200ml (1 cup) into a different plumbing outlet.

SEPTIC SYSTEMS (Smelling):

Powder - Each week for 4 weeks place two bags into the septic tank. Then use one bag every month thereafter.

Liquid - Each week for 4 weeks pour 400ml (2 cups) into a different plumbing outlet. Then use 200ml (1 cup) every week thereafter.

SMELLY PLUMBING OUTLETS (Inside):

Powder - Place 1 bag of Septic Tank product combined with 2 cups of water into the smelly plumbing outlet late at night. If possible do not use plumbing outlet until next day. One application is all that should be needed. If smell returns, repeat application.

Liquid - Pour 100ml (1/2 cup) of Septic Tank product combined with 2 cups of water into the smelly plumbing outlet late at night. If possible do not use plumbing outlet until next day. One application is all that should be needed. If smell returns, repeat application.

Storage and Disposal

- Shelf life: Powder- 2 years. Liquid - 1 year
- Store in original container.
- Store sealed in a dry place at room temperature not exceeding 100 degrees F.
- DO NOT ALLOW PRODUCT TO BECOME WET OR MOIST PRIOR TO USE. DO NOT FREEZE.

Cautions

- Inhalation and direct skin contact should be avoided. Dust protection for eyes, nose and mouth should be used. In the event of direct skin or eye contact, flush the affected area with water. If irritation persists, contact your physician.
- ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET FOR SPECIFIC INSTRUCTIONS.

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WASTE AND SLUDGE REDUCER

Active Ingredients

Propriety blend of naturally occurring microbes specially formulated for the control of accumulated organic waste and sludge in ponds, lakes and aquaculture facilities.

Description

Organica's Waste and Sludge Reducer reduces nutrient levels through accelerated microbial decomposition of organic waste on the pond bottom. The Waste and Sludge Reducer reduces BOD and improves water quality by reducing organic solids and suspended organic particles in the pond water column. Organica's Waste and Sludge Reducer can be used in conjunction with Organica Pond Clarifier for ponds with problems of excess filamentous and planktonic algae. Organica's Waste and Sludge Reducer eliminates hydrogen sulphide odours and improves water quality in a natural way.

Advantages

- Reduces sludge by up to 60%
- Improves water quality and clarity
- Easy application
- No mixing or measuring
- No applicator license or permit required
- Non-hazardous to fish, animals and plants
- No hazardous chemicals





Suggested Application Rates:

Initial Dosage:

- 6 water-soluble packets (approx 1.5Kg) per surface acre.
- 12 wsp per surface acre for severely degraded or highly eutrophic ponds.
- For severely degraded ponds, it may require up to 2-3 initial dosage applications.

Maintenance Dosage:

- 4 wsp (approx 1Kg) per surface acre every two weeks until the desired results are achieved.
- Apply product evenly around area of pond including centre, using a boat for larger areas. Ensure adequate aeration.

For optimal results the water should meet the following conditions:

	OPTIMUM	MINIMUM	MAXIMUM
pH	7.0	4.5	9.5
Dissolved Oxygen, ppm	2.0+	1.0+	-
Temperature, °C	28 (80F)	10 (50F)	40 (104F)
Alkalinity (Calcium hardness)	-	>100mg/l	-

Caution: Oxygen demand may be temporarily elevated during the initial use of this product. Marginal ponds with low oxygen conditions should be monitored or aerated if oxygen depletion is expected.

ADJUSTMENT FOR COLD WATER APPLICATIONS

When water temperatures are below 12C, use the following corrected dosage recommendations:

Temperature Correction Chart

Temperature Range	Multiply Dosage By
12 (55F) or above	1.0
10(50F)-12(55F)	1.11
8 (47F)-10(55F)	1.25
6 (43F)-8 (47F)	1.43
4 (40F)-6 (43F)	1.53

Caution

- IN EYES. Moderately irritating to eyes. Eye protection should be worn while working with Waste and Sludge Reducer.
- ON SKIN. Dermal exposure may cause mild irritation of skin. Avoid contact.
- ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET FOR SPECIFIC INSTRUCTIONS.
- Wash hands thoroughly after using
- It is the responsibility of the customer to take appropriate precautions.

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For more information on *Waste and Sludge Reducer*,
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WASTE WATER TREATMENT PRODUCT

Active Ingredients

Proprietary blend of naturally occurring microbes, enzymes, nutrients and growth stimulants with a unique oxygen release system

Description

Organica's Waste Water Treatment Product is an alternative to chemicals which are commonly used in cleaning waste water treatment systems. It is a proprietary blend consisting of naturally occurring selected strains of biocatalysts for efficient break down of organic waste found in municipal and industrial waste water. The biocatalysts produce enzymes which break down fat, oil, grease and starch resulting in the removal of floating "grease pads" from waste water systems. Moreover, in recent independent scientific testing, *Organica's Waste Water Treatment Product* outperformed the competition by biodegrading toxic and other difficult to degrade substances such as phenols, chlorinated hydrocarbons and proteinaceous wastes at accelerated rates.

Advantages

- Provides rapid breakdown of all complex substances
- Maximises natural bio-decomposition
- Effective under wide range of conditions
- Enhances stability of waste water treatment systems
- Reduces BOD





Suggested application rate

For dry product:

- For the first week of treatment, apply 5Kg per 100,000 gallons water daily
- Thereafter, reapply 1Kg of dry product daily.

For liquid product:

- For the first week of treatment, apply 25 litres per 100,000 gallons water
- Thereafter, reapply 5 litres *liquid* product daily

Cautions

- IN EYES. Moderately irritating to the eyes. Eye protection should be worn while working with Organica's Waste Water Treatment Product.
- ON SKIN. Dermal exposure may cause mild irritation of skin.
- Avoid contact. ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET FOR SPECIFIC INSTRUCTIONS.
- Wash hands thoroughly after using.
- It is the responsibility of the customer to take appropriate precautions.

Storage and Disposal

- Shelf life: Dry- 2 years, Liquid- 8 months
- Keep container tightly sealed
- Store in original container
- Store in a cool, dry place and avoid direct sunlight
- Dispose in accordance with Federal, State, and Local regulations

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