



TECHNICAL PAPER

NATURE'S SOLUTION

INTRODUCTION

Nature's Solution Bio-Enzymatic Deodorizer Digester from National Chemical Laboratories is an advanced combination of genetic engineering, biochemistry and formulation technology; all combined to safely clean and maintain free-flowing plumbing, drain lines, pipes and traps, grease traps and septic tanks...or wherever waste and soils and malodors are a present or future, potential problem.

Nature's Solution is safe to use, economical and effective. They are purified, super-concentrated strains of harmless bacteria and/or their naturally occurring enzymes that are designed and bio-engineered to safely digest and liquify waste, soils and their accompanying malodors. With the Nature's Solution product, each live bacteria designed for different tasks and applications, there is no need ever again to use harsh acids or scalding alkali to free and maintain clean water flow, while providing instant odor control.

Nature's Solution is a chemically neutral free-flowing solution of harmless and super-concentrated bacteria, with cleaning synergists, that are alive and ferment. However, in the presence of a food source, such as greases, fats, carbohydrates, sugars, and proteins these bacteria immediately release their own specific enzymes that disintegrate and "break-apart" any available food source into small units that pass through bacterial cell walls for nearly instant digestion. With a steady supply of food, these bacteria will grow and multiply rapidly, continuing to generate enzymes to break apart any available food source. The enzymes are non-living protein entities, or molecules, that require no external energy source for their function, like scrubbing, or washing, or elevated temperatures and they are never "used-up" in the ordinary sense. They act like keys that unlock large food molecules into smaller units for bacterial digestion, and the keys (or enzymes) are never worn out. Enzymes, therefore, are incredibly efficient, and they function extremely fast. For example, the enzyme catalase, found in the liver and red blood cells, is so efficient that just one (1) molecule or unit of catalase can break down five (5) million molecules of hydrogen peroxide into water and oxygen...every 60 seconds, continuously.

Enzymes are specific, in that each bacterial strain produces specific enzymes that attack only specific chemical units. Because of this, formulas require the proper mixtures of enzyme-producing bacteria to attack specific problem soils or waste or food residue. Greases, fats and oils require different bacteria, with their resulting enzymes, than proteins or sugars or starches. Like enzymes, bacteria, must also have mild conditions to function, such as temperature and neutral pH. Harsh chemicals like detergents, disinfectants, bleaches and acid or alkali solution, will kill off many bacteria, or force them into a dormant and inactive state. Although Nature's Solution unique multi-strain bacterial system is effective in the presence of hot water up to 182°F. quaternary disinfects, bleaches, acid and alkali solutions in typical use dilutions. It is important in food service operations to use Nature's Solution 1 hour or more after shutdown or slowdown of normal cleaning operations and dish washing. Because all living matter, and therefore all vegetable and animal waste matter, is comprised of carbon, hydrogen and oxygen, the end result of bacterial assimilation or feeding are harmless and totally inert carbon dioxide and water. Bacteria, with their enzyme production, are nature's way of cleaning the environment. Safe, effective, efficient, non-chemical cleaning...the NCL's way, with Nature's Solution cleaning maintenance products.



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SYNERGIZED NATURE'S SOLUTION PRODUCT FORMULATION

Nature's Solution contains a synergistic multi-blend strain of safe bacillus microorganisms. The bio-strains in Nature's Solution are listed below:

- BACILLUS LICHENIFORMIS***
- BACILLUS LAEVOLACTICUS***
- BACILLUS PASTEURII***
- BACILLUS POMULUS***
- BACILLUS AMYLOLIQUIFACIENS***

These 5 strains (with 2 of the bacterial exhibiting sub-strains for an overall total of 7 strains) offer excellent grease, fat, and oil degradation capability, excellent light paste enzyme products, very good protease and amylase activity, good in lipase and cellulase activity; also offers fast germination capabilities. The above advanced bio-strains offer the ability to function under both aerobic and anaerobic conditions.

DIVERSITY - organic waste found in drains, grease traps, sewage treatment plants and other locations differ greatly in type and composition. No single bacteria culture or enzyme has the ability to digest every variation of this material in an effective and efficient manner. Digestants comprised of bacteria with differing nutritional requirements allow the product to self-adjust to varying organic loads, maximizing system biodynamics. Nature's Solution also offers adaptability - bacterial species display differing abilities to adapt to environment conditions. These characteristics can be utilized to significantly reduce bacterial germination and response times under a wide range of product application. In essence, Nature's Solution multi-strain bacterial system ensure the greatest bacterial activity in the shortest time possible under the widest range of conditions. Nature's Solution also offers synergism - the bacterial cultures used in Nature's Solution have been chosen for their ability to work together to attack the problems associated with organic wastes. Their proficiency at producing different enzymes to metabolize carbohydrates, proteins, fats and other organic compounds significantly accelerates the digestion process. This formulation was bio-engineered to achieve optimum and rapid broad spectrum multi-use waste degradation performance due to safe and effective bacillus bio-formulation (combined enzyme production and bio-degradation capabilities) . The finished Nature's Solution bio-formulation contains a minimum of 100 billion microorganisms per gallon, with the potential to double the living population every twenty (20) minutes under ideal conditions of pH, temperature and waste food source.



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Each of the bio strains present in Nature's Solution produces a full range of enzyme systems: amylase, protease, cellulase and lipase. As such, each of the strains has the ability to degrade most organic compounds on its own.

However, the value of Nature's Solution's synergized bio-blend is derived from the fact that microorganisms produce different quantities of enzymes, each having different capabilities. Each bio-strain is selected based on its ability to produce high quantities of specific waste-degrading enzymes under differing conditions and ranges of temperature, pH and oxygen levels.

The actual process for the bio-strain selection contained in Nature's Solution product is painstakingly complex and a function of the parameters of the waste problem. As an example, there are different types of enzymes required for the breakdown of the variety of fatty acids produced in the biological reduction of fats, oils and grease. Here again, as in the breakdown of many other organic compounds, a unique blend of specifically selected bacteria working together provide much greater value than any single strain is capable of. Therefore, NCL Nature's Solution products provide broad spectrum capabilities.

II. ADVANTAGE OF USING SYNERGIZED NATURE'S SOLUTION PRODUCT

- **Unparalleled resistance to harsh chemicals and detergents, disinfectants, bleaches and sanitizers.**
- **Resistance to very hot water, up to 182°F, which is 20°F more than competitive products are able to resist.**
- **Improved resistance to detergents, disinfectants and bleaches.**
- **Broader spectrum of uses in addition to possessing the ability to maintain drain lines and drain-line odor.**

Nature's Solution bacteria can be used in a pump spray to eliminate odors in bathroom, urinals, toilets, grouting (uric acid). It may also be sprayed in dumpsters and adjacent areas (trash cans, ash trays, carpets and surrounding dumpster areas) to eliminate the foul smells of decomposing waste material.

SYNERGIZED NATURE'S SOLUTION PRODUCT TECHNICAL DATA

General Description:

Nature's Solution bacteria are living bacterial suspension treatments that break down and liquify suspended or trapped solids such as fats, proteins, carbohydrates and grease, while immediately neutralizing all malodors, including sewer gas (hydrogen sulfide).

Characteristics

Effect on metals, plastics and plumbing components: None
Corrosion: None
Acid content: None
Caustic or lye content: None
Discoloration of materials in contact with: None
Odor: None
Appearance: Free-flowing fluid
pH: Neutral (8-10)
Biodegradability: Biodegradable, does not contain phosphates
Toxicity: Non-toxic
Storage requirements: No special facilities or storage required
Shelf life: Excellent, two-year minimum

USDA: Accepted for use in federally inspected food plants.
Pathogen Content: None
Usage, and usage precautions: Use in all waste lines and facilities to reduce BOD (biochemical oxygen demand), eliminate foul odors, keep lines open and waste flowing freely, and to open drain lines to full diameter. Disinfectants, strong detergents, chlorinated products, extra-hot water (182°F or higher) may destroy or inactivate bacteria and enzymes. Always administer the proper dosage of Nature's Solution products after usage of any cleaners, disinfectants or chemical products.



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ANIMALS AND HUMANS

Nature's Solution bacteria will not harm animals or humans. However, discomfort may follow if allowed to contact eyes. If this product should come in contact with eyes, flush with water immediately and if inflammation develops, call physician. If swallowed, do not induce vomiting. Give large quantities of water. Call physician immediately. Avoid contact with open wounds or sores. If contact occurs and inflammation develops, call physician.

MARINE LIFE

Completely harmless to marine life. Promotes safer water and healthier conditions for marine life. Nature's Solution bacteria reduce BOD. BOD is Biochemical Oxygen Demand, which describes the amount-of oxygen needed for biochemical oxidation of wastes. If BOD values are high, oxygen in water used to oxidize waste depletes oxygen for marine life.

PLANTS

Nature's Solution bacteria is harmless to plants. Plant life down stream from the treatment area may show improvement since Nature's Solution reduces BOD which deprives plant and marine life of adequate oxygen for a healthy existence.

SYNERGIZED NATURE'S SOLUTION USES

Usage Specifics/Applications

All dosages of Nature's Solution bacteria products given in the following applications are of a general nature. Specific dosages in terms of quantities and frequencies of application are a function of individual requirements.

DRAINS AND MAINS

Nature's Solution bacteria is a suspension treatment consisting of specially developed bacteria that are aerobic, anaerobic and facultative in nature. They are harmless to animals and marine life and are non-pathogenic, and they reduce BOD and pollution potential. They also oxidize hydrogen sulphide and eliminate other foul odors and gases produced from waste. Nature's Solution bacteria neutralizes the foulest of malodors with a special additive that provides long-lasting residual malodor control. The bacterial digestion process eliminates the source of waste odors, digesting waste in plumbing elbows, bends, joints, Q-ups...wherever waste can accumulate and eventually cause back-ups and overflows.

PROBLEMS

The purpose of plumbing and drain systems is to accumulate and trap solids and organic matter, while permitting the flow of liquids and fluids due to gravity, in some cases aided by mechanical pumping. In either case, waste liquid must be highly fluid and free-flowing. However, it is not uncommon for a 4" drain pipe to be reduced to 1-1/2" diameter by buildup. The presence of foul odors indicate plumbing systems need prompt attention.

SOLUTION

Nature's Solution bacteria destroys odors, devours grease, soap film, human waste, foods, scum and other solids that can build up and reduce or even stop fluid flow.



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INSTRUCTIONS

Pour Nature’s Solution bacteria directly into drain lines in the lowest floor of the building first, and one floor per day working upwards until entire system is cleaned and flowing freely. After the top floor is reached, treat from the top floor only. Pour Nature’s Solution bacteria directly into drain lines in the lowest floor of the building first, and one floor per day working upwards, until the entire system is cleaned and flowing freely. After the top floor is reached, treat from the top floor only. Since Nature’s Solution bacteria is nature’s way of fighting pollution, it is 100% ecologically safe and will not disturb the action of septic tanks, grease traps or sewage disposal systems. It will not ham any surfaces of fixtures it comes in contact with It is advisable to additionally treat such installations as urinals, garbage grinders and janitorial closets to help accelerate the total drain system cleaning process.

PIPE SIZE	DOSAGE	FREQUENCY
2"	4 oz .	2 times per week
4"	8 oz .	2 times per week
6"	12 oz.	2 times per week
8"	16 oz .	2 times per week

Always apply Nature’s Solution bacteria at the end of each day or during the lowest usage period, but only after all other cleanup is completed. Do not pour hot water (182°F or higher), chlorinated products, or disinfectants down drains after treatment with Nature’s Solution bacteria as these agents may inactivate. During the introductory treatment period (21-35 days) prescribed amounts may be exceeded to accelerate the establishment of digestive colonies. Recommended dosages should be increased proportionately if exceptional usage increases are experienced during any 30 day period.

TIMING

Apply Nature’s Solution bacteria at the end of each day or during the period of least usage.

RESULTS

Drains will flow freer, foul odors will disappear and drain pipes will be restored to their original free-flowing open diameters. In addition to regular direct treatment of drains, it is also recommended on a periodic basis to treat dishwashers, janitorial closets, urinals and other areas that are potential problem-causing sites even in buildings that are well-maintained.

USAGE QUANTITY AND FREQUENCY

	If main drainage system is being treated regularly	If main drainage system is not being treated regularly
Dishwashers	1 oz/week	16 oz/week
Floor drain	1 oz/week	4 oz/week
Garbage grinder	1 oz/week	4 oz/week
Grease trap	16 oz/week	16 oz/week
Pot sink	2 oz/week	4 oz/week
Steam table	1 oz/week	4 oz/week
Mop sink	2 oz/week	4 oz/week



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USAGE QUANTITY AND FREQUENCY

	If main drainage system is being treated regularly	If main drainage system is not being treated regularly
Toilet bowls	2 oz/week	4 oz/week
Ice bin drains	2 oz/week	4 oz/week
Laboratory Sinks	2 oz/month	4 oz/month
Hand dishwash sinks	2 oz/week	4 oz/week
Refrigerator drains	2 oz/week	4 oz/week
Vegetable peelers	2 oz/week	4 oz/week
Vegetable pre-rinse sinks	2 oz/month	4 oz/month
Horizontal Branchline	1 oz/week	2 oz/week
Stack vent	1 oz/week	2 oz/week
Urinals	2 oz/week	4 oz/week
Toilet wash basins	2 oz/month	4 oz/month

USE OF SYNERGIZED NATURE'S SOLUTION BACTERIA

- 1) Squeeze the quart bottle and allow the liquid to rise.
- 2) Tip bottle and pour from the flip top into drain, grease trap, toilet or urinal.

GREASE TRAPS

Nature's Solution bacteria feed on suspended solids in grease traps, breaking down proteins, stubborn animal fats and greases sugars and starches, liquifying them to flow freely while eliminating odors. Nature's Solution bacteria and enzymes increase efficiency and profitability through the elimination of manual cleaning of grease traps.

PROBLEM

One of the most unpleasant and expensive experiences in the operation of running a restaurant or cafeteria is grease trap overflow caused by grease and solids entering the grease trap. Because the trap cannot be shut down, and because its capacity cannot be increased, the solution to this problem is to break down and digest grease and solids as they enter the grease trap. This enables full, open flow through the trap, ending unexpected overflow, odors and manual cleaning.

SOLUTION

Nature's Solution bacteria breaks down grease and solids, allowing steady, even, open fluid flow.

PROCEDURE

For best results, start treatment immediately after the grease trap has been cleaned. Add directly to the grease trap, using one quart per cu.ft. capacity. One week later begin a preventive maintenance schedule, as follows: At the close of business, run lukewarm water down each drain leading to the grease trap for 30 seconds to clear the line of any harsh chemicals that could reduce biological activity of the bacteria and enzymes. Dilute one pint or 16 oz of Nature's Solution in lukewarm water to prepare sufficient solution to pour approximately one-half pint or 8 oz. of the diluted product down each drain. Let mixture stay in the drain overnight, undisturbed by fresh water flow. In the morning, run lukewarm water down each drain for 20 seconds to flush mixture into grease trap. Repeat once a week. For 24-hour operations, use at times of slowest water flow down drains.



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For traps that have been in use where a top crust is visible, add one quart per 25-cu.ft. capacity directly into the grease trap. Repeat every three to four days until the top crust disappears, and then start the preventive maintenance schedule. If the grease trap is not treated first, it may receive excessive grease and become overloaded.

TIMING

Treatment should take place at the close of business or at the end of peak traffic usage (in the case of 24 hour operations).

PREVENTIVE MAINTENANCE

Treatment should always be applied first on the lowest level; that is, at the point nearest the drain leading to the lateral, either the basement floor drain, or first floor facilities if there is no basement drain, regardless of where the blockage is. Even if the slowing is on an upper floor, always begin initial treatment at the lowest level, and then follow the initial treatment one day later with an application on the next highest floor. Follow this procedure each day until the floor with stoppage is reached. Since Nature's Solution bacteria releases large amounts of debris from plumbing, that other methods are unable to locate or reach, this procedure will prevent the problem of dislodging debris on upper floors that may overwhelm debris in a lower floor pipe, causing flowage problems. Therefore, in a like manner, always treat the grease trap first, with a concentrated purge treatment, before treating any plumbing fixtures or lines that empty into the grease trap. Do not treat related plumbing until 48 hours after the grease trap's last purge treatment. If this is not done, grease traps will receive more loosened grease and solids than their capacity can cope with. If this occurs, the dirty grease trap will become overloaded, plugging the line leading out from the trap. If a facility regularly deep-fat fries, the grease trap must receive a.purge treatment on a routine basis to prevent the overloading of cooked grease plugging its drain field or dry well.

PREVENTIVE MAINTENANCE REGULAR GREASE TRAP TREATMENT GUIDE.

Size:	20 cu. ft.	40 cu. ft.	60 cu. ft.
Schedule:	4 oz. per day	8 oz. per day	12 oz. per day

INITIAL PURGE TREATMENT DIRECTIONS

- 1) Make certain that any crust or cap is broken up within the grease trap.
- 2) Add directly to the trap one quart of Nature's Solution bacteria per each 25 cu.ft. capacity.
- 3) One week later, begin preventive maintenance guide listed above.

INSTRUCTIONS - USE OF SYNERGIZED NATURE'S SOLUTION BACTERIA

To treat the average grease trap of 20 cu.ft. or less capacity, apply 4 oz. of Nature's Solution Bacteria each day through the sink or pipe line closest to the grease trap. For larger grease traps, apply 4 oz. for every 20 cubic feet every day.



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Recommended quantities will take 21-25 days to achieve full strength. Certain agents used in your cleanup procedure may inactivate Nature's Solution bacteria, such as hot water (182°F or higher), concentrated disinfectants and chlorinated products. It is therefore absolutely necessary that grease traps are not treated with Nature's Solution before flushing such agents down the drain.

For 24 hour-a-day operations treat the grease trap in its slowest usage period, following clean up. For less than 24 hour-a-day operations treat after closing, but not before cleanup. Recommended dosages should be increased proportionately if exceptional increases are experienced in traffic (or operation) during any 30-day period.

PONDS, LAGOONS, HOLDING TANKS, FEED LOTS, SEWAGE AND INDUSTRIAL WASTE TREATMENT PLANTS

Nature's Solution bacteria is nature's way to harmlessly disintegrating waste and preventing pollution via bacterial digestion, which is harmless to plants, animals and marine life.

PROBLEMS WITH PONDS, LAGOONS, HOLDING TANKS AND FEED LOTS

Clogging and sluggishness of fluid movement of influent can cause severe malodor problems. Vegetation downstream from treatment plants may be killed by the high BOD of effluent. Scum blankets, algae growth and weed growth may result in ponds or lagoons, where waste has overwhelmed the normal digestive capacity of bacteria.

SOLUTION

Nature's Solution bacteria reduces BOD and foul odors immediately. This product liquifies, digests and deodorizes organic waste, making it compatible with the subsoil or water body receiving it.

PROCEDURE/APPLICATION

Apply directly to lagoons, ponds or pits.

PREVENTIVE MAINTENANCE USE SCHEDULE FOR PONDS AND LAGOONS, HOLDING TANKS AND FEED LOTS.

Use three gallons per million gallons of daily flow for seven days, two gallons for the next seven days, and a preventive maintenance dose of one gallon per million gallons of daily flow each day thereafter. It may be necessary to increase the application rate if the lagoon or pond has a surface crust, is unusually malodorous, or has a large buildup of solids. Approximately four-six weeks may be required to re-establish balance into a given system.



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RESULTS

Free-flowing waste, greatly reduced BOD, elimination of foul odors, lower COD, pH stabilization, elimination of scum blankets and the reduction of suspended solids.

Nature's Solution bacteria is ready for use, and does not require mixing with any other product.

Nature's Solution bacteria applied daily according to directions is effective in eliminating foul odors and gases. It eliminates BOD and damage due to high BOD. If a facility is very malodorous, or if the acidity is high (less than a pH of 6.0), remedial measures are needed before a bacteria treatment program is initiated. If the pH is below 7.0, use sodium nitrite or Liquid Lime to correct. If the scum blanket is exceptionally thick or the facility is exceptionally malodorous, the system should be aerated.

INITIAL PURGE TREATMENT FOR PONDS, LAGOONS, HOLDING TANKS AND FEED LOTS

1st day	Six gallons per million gallons of waste water
2nd through 4th Day:	Two gallons per million gallons of waste water
4th through 7th Day:	Three gallons per million gallons of waste water daily
8th through 14th Day:	Two gallons per million gallons of waste water daily
15th through 31st Day:	One quart per million gallons of waste water daily

After the scum blanket has been removed via digestion and/or malodors have disappeared, begin the preventive maintenance program schedule.

CALCULATIONS FOR LAGOONS, PONDS, ETC.

- a) Length X Width X Depth X 7.5= Total gallons
- b) One Acre Foot = 325,000 gallons, for each foot of water depth
- c) Holding gallons plus influent gallons, divided by one million gallons multiplied by three = daily dosage for initial period, expressed as gallons.

EXAMPLE:

$$325,000 + 75,000 \times 3 / 1,000,000 = 1.2 \text{ gallons daily}$$

- d) Influent gallons divided by 1,000,000 = daily maintenance dosage

EXAMPLE:

$$75,000 / 1,000,000 = .075 \text{ gallons}$$

Recommended dosage should be increased proportionately if spectacular increases are experienced in traffic (or operation) during any 30 day period.

CALCULATION OF VOLUME OF CIRCULAR POND, LAGOON OR TANK

Depth in feet X diameter in feet square X 5.875 = Volume in gallons.

EXAMPLE:

A 30 ft. diameter pond or holding tank that is filled to a depth of 20 feet contains 105,750 gallons.

$$20 \times 900 \times 5.875 = 105,750 \text{ gallons, where } 900 \text{ equals } 30 \text{ squared } (30 \times 30)$$



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SEWAGE AND INDUSTRIAL WASTE TREATMENT PLANT PROBLEMS

Nature's Solution eliminates grease and sludge odor problems, while accelerating the digestion of dissolved and suspended solids throughout an entire sewage drain. It reduces scum blankets and odors in waste ponds.

PROCEDURE

Waste Treatment Plants: Use 3 ppm (parts per million) for the first seven days, 2 ppm for the next seven days followed by a daily preventative maintenance dosage of 1 ppm. Add at a time giving longest retention time in the plant. The collection system can also be treated with this same schedule. However, the plant must be operating properly before treating the collection system as the plant may receive more waste than it can manage. Avoid treating a plant that is hydraulically overloaded. This prevents the bacteria in the product from becoming established as an integral part of the plant's biota.

RESULTS The use of Nature's Solution will result in free flowing waste with greatly reduced BOD, no foul odors, no grease and sludge problems and a reduction of the scum blanket. It will also stabilize pH, reduce sludge build-up, reduce settleable solids and inhibit hydrogen sulfide formation

DAILY TREATMENT CHART

Gals. Flow per Day	Ozs. Treatment per Day
7,812	1
15,625	2
23,437	3
31,250	4
39,062	5
46,875	6
54,687	7
62,500	8
70,312	9
78,125	10
156,250	20
234,375	30
312,500	40
390,625	50
468,750	60
546,875	70
625,000	80
703,125	90
781,250	100
859,375	110
937,500	120
1,000,000	128



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SEPTIC TANKS, PORTA-TOILETS, CESS POOLS, DRAIN FIELDS, SUMP PUMP AND DRY WELLS

Nature's Solution bacteria is a live bacteria (not an enzyme) suspension treatment that breaks down and liquifies suspended solids such as fats, greases, carbohydrates and proteins. Sewer gas malodors are eliminated by these bacteria as they liquify organic solids and aid effluent flowing into subsoil. Nature's Solution bacteria will enter and colonize lateral lines and hold tanks and keep them open and functioning. Regular treatment with Nature's Solution bacteria prevents foul odors and gases, unnecessary pumping, excavation bills, ponding drain fields and inoperative dry wells.

SEPTIC TANK PROBLEMS

Septic tanks function by holding organic waste long enough to allow digestion and liquefaction, facilitating drainage into subsoil. However, they can overflow, emit foul odors and gases, cause backups of sewage into plumbing fixtures, clog drain field pores, plug up drain field soil, cause unnecessary pumping and excavation bills. This is due to septic tanks being out of balance, and is caused by inadequate grease, soap and protein digestion bacteria, which in turn may be caused by caustic cleaners or germicides destroying or inactivating working bacteria in the tank.

SOLUTION

Nature's Solution bacteria liquifies organic wastes and suspended solids and keeps liquid free-flowing while removing foul odors. Regular treatment reinforces bacteria colonies weakened by waste that is toxic to bacteria.

SEPTIC TANK PROCEDURES

Use 16 ounces per 25 cu.ft. of capacity for the initial purge dose. Pour into toilet and flush. Thereafter, use 8 ounces each week or 16. ounces each week for every 12 people using a facility. Nature's Solution may be diluted with lukewarm water to pour 8-ounces into each drain in a dwelling. Allow to remain in drain overnight and flush with lukewarm water the next morning. This will maintain open and odor free lines. If septic tank has become clogged and odorous, add one gallon directly to the septic tank through its manhole opening. When the tank functions properly, begin a preventive maintenance schedule.

PORTA TOILETS

Add one gallon directly, and if necessary add water to cover visible solids. Use 16-ounces each week for continued waste digestion. Waste surface must be moist at all times. Repeat treatment using one gallon of treatment each time a vault is pumped.

RECREATIONAL VEHICLES, BOATS AND MARINAS

Add 2-oz. per gallon of water in each toilet holding tank. Thereafter, use one oz. per gallon as needed. Repeat after every clean out. For use at a dump station, add one gallon for each 50 gallons of tank capacity followed by 16-oz. every week. Repeat after every clean out.



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SUMP PUMPS

To correct a heavy solids buildup inside a sump pit, use a purge treatment of 4 to 12 ounces of Nature's Solution bacteria, depending on the size of the drain line leading to the sump and the amount of solids buildup in the pit. After the accumulation of solids in the pit has been digested and the sump restored to full capacity, no preventive maintenance program will be needed if floor drains leading to the sump are treated regularly. If the floor drains cannot be treated, two to six ounces of Nature's Solution bacteria, applied weekly to the line leading to the sump, will keep the sump free of accumulated solids and odor, and will ensure efficient operation.

DRAIN FIELDS

Drain fields (also called leach beds or tile fields) can be unblocked or opened - simply and inexpensively with Nature's Solution bacteria. The following treatment program will unblock and open at least 50% of drain field pipe opening and restore porosity to the surrounding soil within 30 days. Within 60 days of require and proper treatment with Nature's Solution, at least 90% of drain filled pipe openings will open and be working efficiently with the surrounding soil being restored to full, natural porosity so that ponding will not reoccur. The most rapid and effective way to open a clogged drain field is to add two (2) gallons of Nature's Solution bacteria directly to the distribution box or the collection box in the pipe that leads from the septic tank to the drain field. Fields that are ponding and are odorous may require frequent repetition of this purge treatment. If the distribution box cannot be found, then apply three gallons of Nature's Solution Bacteria directly to the septic tank through the manhole. Continue applying three gallons per week until the cap in the septic tank is disintegrated and ponding in the drain field has been eliminated. Thereafter, regular use of Nature's Solution Bacteria as outlined in the septic tank treatment section will insure continued proper operation and prevent clogging of the drain field from developing.

NATURE'S SOLUTION APPLICATION FOR PUBLIC RESTROOMS PROBLEM

The odors in most public restrooms are controlled by the use of odor-masking agents such as scented devices and urinal deodorant blocks. These only conceal odors temporarily. Sometimes they also make the problems more difficult to solve by preventing the removal of the odor cause. Caustic chemicals are also used in some restrooms. These chemicals can be harmful to plumbing.

SOLUTION

Regular use of Nature's Solution eliminates the need for using these temporarily effective or potentially harmful products.

- Eliminates urine odor and other unpleasant odors.
- Gets rid of the cause of odors, does not just mask odors.
- Harmless to plumbing, contains no acids or caustics.
- Restores proper drainage in sinks and urinals.
- Reduces and eliminates grease and undissolved soap.