

## INFORMATION PACKAGE WILDWOOD RV DUMP AND SEPTIC TANK USE

**Please take the time to read the information provided below to help us maintain the integrity of our common use septic system and also to help with the maintenance of your own system. Septic systems can encounter extensive abuse. Chemical cleaners, toxic drain openers, soap, grease, excessive paper and antibiotics all put a burden on a system's performance. We found this out the hard way and have just recently completed (Nov. 2013) a total replacement of both the Caretakers system and the RV Holding Tank and have combined them into one "50 year" system.**

So, you're a first time RV owner or a seasoned veteran and sure, you've heard horror stories about dealing with unrelenting sewer tank problems. After all, dealing with such a "dirty" subject doesn't exactly fit the vision you had of spending grand vacations in your RV, right?

But the truth is, self-contained living comes with a price tag, and more than just giving up a few thousand square feet of living space you're accustomed to in your home. If you ask around campgrounds and RV parks, in fact, you'll find most RV owners have a story or two to tell about those problems, most often associated with the RV's holding tank systems.

In most recreational vehicles you have some type of freshwater system, gray water and black water systems and holding tanks. While the term fresh water goes without explanation, gray water represents fresh water that has gone down the drain in the sinks and showers and into a holding tank. Black water, as you might have guessed, comes from the toilet after it is flushed.

While RV parts and appliances wear after years of service, proper care of your holding tanks and water systems can greatly reduce your problems in the long run. Learning what to do and what not to do, and when, is as important as any single aspect of the proper care you dedicate to your system. This is especially true with the black water system/tank.

There's a lot of rules you will learn to live by as a RV owner, but rule #1 has to be, "remember proper black water tank/system care," and avoid the kinds of problems you don't want to inherit.

Almost all travel trailers, fifth wheels and motor homes have holding tanks for the fresh, gray and black water. Pop-up tent trailers may only have a small fresh water holding tank and no holding tanks for gray or black water.

The "black" tank holds the waste and water from the toilet. This tank needs to be treated with chemicals to break down the solid waste and to control odors. Pop-up trailers usually use a "cassette" toilet that still needs some chemical treatment to combat odors and break down the waste.

### Chemicals

There are special chemicals you should use, especially in the black tank, to reduce odors and the buildup of solids in the tank, which would cause you problems down the road. There are many brands and types on the market, from powder to liquid. Regardless of the type, it is usually recommended (or required by the campground) not to use chemicals that contain formaldehyde, which is a chemical that is harmful to some septic systems. **Wildwood is one of those that does not want formaldehyde put into their sewer systems.**

It is recommended to use the liquid type and put a little in the gray tank via one of the sinks to help control odors that can come from there. Since the chemicals are also designed to help lubricate the dump valves, this is another reason for putting a little in the gray tank.

Most of the black tank chemicals advertise that 4 ounces will treat a 40-gallon tank, but there are times where you could use more or less than 4 ounces for that 40-gallon tank. Some brands require a “double dose” in hot climates (like Arizona in the summer).

If you park your RV in a warm or hot location while not in use, you may want to add water to both black and gray holding tanks occasionally to keep the dump valves from drying out.

The most common additives found in newer holding tank products include tank cleaners, waste digesters, deodorizers, toilet tissue digesters, gauge sensor cleaners, and drain valve lubricants. When shopping for holding tank chemicals, look for products that contain as many of these additives as possible.

The primary function of tank chemicals is to break down waste and remove odors. Older products used formaldehyde to very successfully prevent odors. However, many septic systems can't break it down and it has a nasty habit of killing "good" bacteria. As a result, nearly all campgrounds and dump stations prohibit the draining of formaldehyde into their sewer systems. **Wildwood is one of those that does not want formaldehyde put into their sewer systems.**

A nice, modern alternative is enzyme-based toilet chemicals that use live bacteria to digest odor-causing agents and break down solid waste. They are designed to accelerate the digestion of organic material while maintaining a low environmental impact and low toxicity. They do lose effectiveness in temperature and water pH extremes, however, and for best results they should be introduced into a totally clean tank.

### **DOs and DON'Ts**

Holding tanks don't rely on mechanical devices for their trouble free operation. The most common problem is an unpleasant one - clogging. You can minimize the chances of clogging by keeping the following considerations in mind:

- Keep the black water tank knife valve tank to at least 3/4 full before draining. Be sure to cover the tank bottom with water after draining.
- Use only toilet tissue formulated for tank or RV sanitation systems.
- Keep both knife valves closed and locked, and the drain cap tightly in place when using the system on the road.
- Use only cleaners that are approved for use in septic tank or RV sanitation systems.
- Use a special holding tank deodorant chemical approved for septic tank systems in the black water holding tank. These chemicals aid the breakdown of solid wastes and make the system much more pleasant to use.
- Do not put facial tissue, paper, ethylene glycol based or other automotive antifreeze, sanitary napkins or household toilet cleaners in the holding tanks.
- Do not put anything solid in either tank that could scratch or puncture the tank.
- If the drain system does get clogged:
  - Use a hand-operated probe to loosen stubborn accumulations. Seriously clogged P-traps may require disassembly. Be careful not to over tighten when reassembling.
- Do not use harsh household drain cleaners.
- Do not use motorized drain augers.

Sometimes the holding tank valve will get clogged. In this case, a hand-operated auger may be necessary. Be ready to close the valve quickly once the clog is cleared. If the seal gets damaged, it is easily replaced.

When you arrive at your destination, you can go ahead and hook up the sewer hose to the RV and to the dump hookup if you like (or you can wait and do it when you need to dump), but leave the dump valves

closed until you need to dump the tanks. This will do a couple things. First, it will prevent odors from the campground sewer system from backing up into your RV. Second, it will give the chemicals in the tanks a chance to do their job.

The article below will provide additional perspective on maintaining water quality and septic system integrity.

Water Quality Program, College of Human Ecology, Cornell University

# The Influence of RV Chemicals in Marina or Campground Septic Tanks

Annelies J. Heidekamp and Ann T. Lemley

Chemicals to reduce smells coming from either boat or RV holding tanks can be of influence on the delicate bacteriologic balance in a septic tank in a campground or at a marina. Therefore it is important to choose the chemical with the least influencing effects. But what are the chemicals that come to mind and what are the safety measures to take?

## The chemicals used

Over the years a number of different chemicals have been used. Formaldehyde, paraformaldehyde, and quaternary ammonium are the most important known active species. In table 1 the different ingredients are shown:<sup>1</sup>

Table 1. Active ingredients you should avoid using in your holding tank.

Active Ingredient	Threats to Human and Environmental Health
Bronopol (chemical name: bromo-nitropropane-diol)	Bacterial pesticide
Dowicil (chemical name: 1-(3-chlorallyl)-3,4,7-triazol-1-azoniaadamantane chloride)	Bacterial pesticide (EPA states “Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority.”)
Formaldehyde (also known as Formalin; degrade of Bronopol)	Kills or retards bacterial growth; recognized by EPA as probable carcinogen <sup>1</sup> ; moderately toxic to humans <sup>2</sup> .
Glutaraldehyde (also known as embalming fluid)	Retards bacterial growth and covers sewage odor; eye/inhalation irritant.
Paraformaldehyde (polymerized formaldehyde)	Very toxic to humans <sup>3</sup> (see formaldehyde)
Para-dichlorobenzene (common ingredient in mothballs, urinal cakes, and toilet bowl fresheners)	Known carcinogen <sup>1</sup> and drinking water contaminant; moderately toxic to humans <sup>2</sup> .

1. A carcinogen causes cancer.
2. Lethal dose for a 150lb person is between 1 ounce to 1 pint.
3. Lethal dose for a 150lb person is between 1 teaspoon to 1 ounce.

Although most of these ingredients are biodegradable if diluted properly, they have been proven to be a nuisance, especially when an RV tank is emptied when only half-full. The dosage of the de-odorizing agents that is shown on the label is for a full tank. When a tank containing less is

emptied, the concentration of chemicals is higher. This makes it more difficult for the septic tank bacteria to cope.

Another problem with the chemicals mentioned in the above table is that fact that they can also be a threat to human health. Formaldehyde is a good example. In the MSDS (Material Safety Data Sheets) it is mentioned that it is poisonous when ingested and can cause burns on the skin. Although formaldehyde is diluted (to 37%) in the final product, it is still something that can give grave irritation.

### **The manufacturers**

There are a great number of manufacturers for RV chemicals.<sup>2</sup> Almost all different products say that they are 100% biodegradable. As active species only formaldehyde and enzymes could be found on the current products. The important thing for a consumer to do is read the label. Only then can you make sure if any of the above mentioned active species are present.

### **The influence on septic tanks**

The result from these chemicals in septic tanks can be threefold:<sup>3</sup>

1. The degradation process in the septic tank can be slowed down to the point that the sludge contents will increase and a larger risk exists of overflow of solids into the drain field.
2. If the concentration of the product chemicals is too high, it can reduce the drain field's ability to degrade waste.
3. The toxic chemicals might migrate from the drain field to the groundwater.

Although these risks exist, a study by Novak et al.<sup>4</sup> shows that campgrounds in Virginia (with seasonal occupation) show no signs of septic tank failure. And a study by Pearson et al.<sup>5</sup> shows that a septic tank will have a lot of problems with large amounts of formaldehyde, zinc and phenol. But these large amounts are not realistic and the septic tanks still managed to go back to normal within 2 days.

### **Conclusions**

- Only full tanks should be emptied in septic tanks.
- Read the label on the de-odorizing product carefully for the presence of active species.
- Follow the directions for applying the product to your tank.
- When in doubt ask the campground/marina owner what kind of de-odorizer you should use.

### **References**

1. University of Arizona fact sheet on "RV holdingtank treatments and de-odorizers in septic systems" <http://ag.arizona.edu/pubs/water/az1233.pdf>
2. Several sellers' sites: [www.thetford.com](http://www.thetford.com), [www.odorlos.com](http://www.odorlos.com), [www.valterra.com](http://www.valterra.com), [www.dyersonline.com](http://www.dyersonline.com), [www.jcwhitney.com](http://www.jcwhitney.com)
3. "Effects of deodorants on treatment of boat holding-tank waste" Walker WR, Haley CJ, Bridgeman P, Goldstein SH,; Environmental management 15 (3): 441-449 MAY-JUN 1991
4. The effect of boat holding tank chemicals on treatment plant performance" Novak, J.T., McDaniel, C.R., Howard, S.C.; Research journal of the water pollution control federation 62(3), 288-295 (1990)

5. Pilot scale septic tank treatment of preservativeladen waste ” Pearson FH, McLean HR, Klein SA; Research journal of the water pollution control federation,63 (7): 999-1011 NOV-DEC 1991

**Now with all of this said, listed below are four products that meet the criteria Wildwood would recommend for use in your RV systems if you are going to dump into the Wildwood RV Dump / Septic System. The septic system requires prudent maintenance to properly function and when abused can be extremely costly to replace. The last two products are the same, granular and liquid, and are also excellent in maintaining your individual septic system, if you have one, on your property. All of these products can be purchased or ordered from Lowes, Home Depot or ACE Hardware**

## RV & MARINE BLACK WATER TREATMENT



Roebic's RV and Marine Black Water Treatment contains specialized bacteria engineered for the smaller holding tanks typically found in motor homes and boats. In Black Water tanks the fast acting and fast multiplying bacteria quickly break down solid waste. Roebic's RV and Marine Black Water Treatment is biodegradable, will not harm the environment and work extremely well at controlling odors.

**MATERIAL SAFETY DATA SHEET CONFORMS WITH OSHA FORM OMB NO. 1218-0072**

### **RV MARINE BLACKWATER TREATMENT**

#### **IDENTITY (As Used on Label and List)**

RV Marine Blackwater Treatment – RV-1

**Date Prepared – 07/01/98**

**Reviewed – 06/11/12**

**Person Preparing Document – Steven Smith**

#### **Section 1**

##### **Manufacturer's name**

Roebic Laboratories, Inc.

##### **Address (Number, Street, City, State, and ZIP Code)**

25 Connair Road, PO Box 927

Orange, CT 06477

##### **Emergency Telephone Number**

CHEMTREC 1-800-424-9300

##### **Telephone Number for Information**

1-203-795-1283

**MATERIAL SAFETY DATA SHEET CONFORMS WITH OSHA FORM OMB NO. 1218-0072  
RV MARINE BLACKWATER TREATMENT**

**Section 2 - Hazardous Ingredients / Identity Information**

**Hazardous Components (Specific Chemical Identity; Common Name(s)):**

This product is a suspension of non-pathogenic laboratory controlled bacteria culture. Product contains 5% non-ionic surfactant CAS No. 26027-38-3. Organisms are non-pathogenic, but can cause infection when in contact with open wounds. These organisms are susceptible to commonly used antibiotics.

**Section 3 - Physical / Chemical Characteristics**

**Boiling Point** – 212<sup>0</sup> F

**Vapor Pressure (mm Hg.)** - Same as water.

**Vapor Density (AIR = 1)** - Same as water.

**Solubility in Water** - 100%

**Specific Gravity (H<sub>2</sub>O = 1)** - 1

**Melting Point** - N/A

**Evaporation Rate (Butyl Acetate = 1)** - Same as water.

**Appearance & Odor** - Opaque, off white liquid, clean fragrance, Neutral ph.

**Section 4 - Fire & Explosion Hazard Data**

**Flash Point Method Used** - N/A

**Extinguishing Media** - N/A

**Special Fire Fighting Procedures** - N/A

**Unusual Fire & Explosion Hazards** - N/A

**Flammable Limits** - N/A LEL UEL

**Section 5 - Reactivity Data**

**Stability** – Stable

**Incompatibility (Materials to Avoid):**

Strong acids or alkali may inactivate bacteria cultures.

**Hazardous Polymerization** - Will not occur.

**Conditions to Avoid** - N/A

**Hazardous Decomposition of By-products** – None

**Conditions to Avoid** - N/A

**Section 6 - Health Hazard Data**

**Route(s) of Entry: Inhalation?** N/A **Skin?** Yes **Ingestion?** Yes

**Health Hazards (Acute & Chronic):**

**Chronic** - N/A

**Acute** - Skin Contact: Possible Dermal Sensitivity

Eye Contact: Possible Infection

Ingestion: Possible GI Tract Irritation

**Carcinogenicity: NTP?** N/A **IARC Monographs?** N/A **OSHA Regulated?** No

**Signs & Systems of Exposure:**

Dermal: Redness, Other signs of topical infection

Eyes: Redness, Itching, Other signs of infection

**Medical Conditions Generally Aggravated by Exposure** - N/A

**Emergency & First Aid Procedures:**

Skin Contact: Wash with soap and water.

Eye Contact: Flush with plenty of water, contact physician.

**MATERIAL SAFETY DATA SHEET CONFORMS WITH OSHA FORM OMB NO. 1218-0072  
RV MARINE BLACKWATER TREATMENT**

**Section 7 - Precautions for Safe Handling & Use**

**Steps to be taken in case material is released or spilled:**

Wash down drain with water or use chemical absorbent and sweep up. Disposal must be in accordance with local, state, and federal regulations.

**Waste Disposal Method:** Drain, Sewer Line, or Open Ground

**Precautions to be taken in handling and storing:**

Wash hands thoroughly with soap and water after use. Avoid contact with eyes.

**Other Precautions:**

Avoid prolonged exposure to temperatures above 115<sup>0</sup> F to maintain product activity.

**Section 8 - Control Measures**

**Respiratory Protection (Specify Type):** Normal Room Ventilation

**Eye Protection:** Use protective glasses to avoid contact.

**Work / Hygienic Practices:** None except as noted above.

**Protective Gloves:** None required

**Other Protective Clothing or Equipment:** None required.

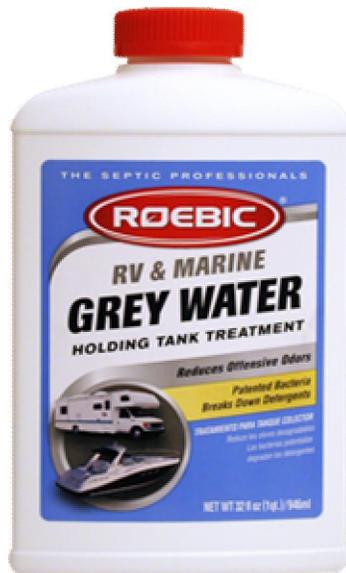
**Ventilation: Local Exhaust?** N/A

**Mechanical (General)?** N/A

**Special?** N/A

**Other?** N/A

## RV & MARINE GREY WATER TREATMENT



**Roebic's RV & Marine Grey Water Treatment** contains specialized bacteria engineered for the smaller holding tanks typically found in motor homes and boats. In the Grey Water application, the bacteria start to breakdown soap, grease and food particles. RV & Marine Grey Water Treatment is biodegradable, will not harm the environment and work extremely well at controlling odors.

**MATERIAL SAFETY DATA SHEET CONFORMS WITH OSHA FORM OMB NO. 1218-0072  
GW – RV & MARINE GREY WATER TREATMENT**

**IDENTITY (As Used on Label and List)**

GW RV & Marine Grey Water Treatment

**Date Prepared** – 01/01/99

**Reviewed** – 06/11/12

**Person Preparing Document** – Steven Smith

**Section 1**

**Manufacturer's name**

Roebic Laboratories, Inc.

**Address (Number, Street, City, State, and ZIP Code)**

25 Connair Road, PO Box 927

Orange, CT 06477

**Emergency Telephone Number**

CHEMTREC 1-800-424-9300

**Telephone Number for**

**Information**

1-203-795-1283

**Section 2 – Hazardous Ingredients / Identity Information**

**Hazardous Components (Specific Chemical Identity; Common Name(s)):**

This product is an aqueous suspension containing a non-pathogenic laboratory controlled bacteria culture, and a few fermentation by-products. Product contains 1% non-ionic surfactant CAS No. 26027-38-3. Organisms used are non-pathogenic, but can cause infection when in contact with open wounds. These organisms are susceptible to many commonly used antibiotics.

**Section 3 – Physical / Chemical Characteristics**

**Boiling Point** - 212° F

**Vapor Pressure (mm Hg.)** - Same as water.

**Vapor Density (AIR = 1)** - Same as water.

**Solubility in Water** - 99%

**Specific Gravity (H<sub>2</sub>O = 1)** - 1

**Melting Point** - N/A

**Evaporation Rate (Butyl Acetate = 1)** - Same as water.

**Appearance & Odor** - Slightly hazy, slightly earthy odor, slightly foaming.

**Section 4 – Fire & Explosion Hazard Data**

**Flash Point Method Used** - N/A

**Extinguishing Media** - N/A

**Special Fire Fighting Procedures** - N/A

**Unusual Fire & Explosion Hazards** - N/A

**Flammable Limits** - N/A LEL UEL

**Section 5 – Reactivity Data**

**Stability** – Stable

**Incompatibility (Materials to Avoid):**

Strong acids or alkali may inactivate bacteria cultures.

**Hazardous Polymerization** - Will not occur.

**Conditions to Avoid** – N/A

**Hazardous Decomposition of By-products** – None

**Conditions to Avoid** - N/A

**Section 6 – Health Hazard Data**

**Route(s) of Entry:** Inhalation? N/A Skin? Yes Ingestion? Yes

**Health Hazards (Acute & Chronic):**

**Chronic** - N/A

**MATERIAL SAFETY DATA SHEET CONFORMS WITH OSHA FORM OMB NO. 1218-0072  
GW – RV & MARINE GREY WATER TREATMENT**

**Section 6 – Health Hazard Data (cont'd)**

**Acute - Skin Contact:** Possible Dermal Sensitivity

**Eye Contact:** Possible Infection

**Ingestion:** Possible GI Tract Irritation

**Carcinogenicity:** NTP? N/A IARC Monographs? N/A OSHA Regulated? No

**Signs & Systems of Exposure:**

Dermal: Redness, Other signs of topical infection

Eyes: Redness, Itching, Other signs of infection

**Medical Conditions Generally Aggravated by Exposure - N/A**

**Emergency & First Aid Procedures:**

Skin Contact: Wash with soap and water.

Eye Contact: Flush with plenty of water, contact physician.

**Section 7 – Precautions for Safe Handling & Use**

**Steps to be taken in case material is released or spilled:**

Wash down drain with water or use chemical absorbent and sweep up. Disposal must be in accordance with local, state, and federal regulations.

**Waste Disposal Method:** Drain, Sewer Line, or Open Ground

**Precautions to be taken in handling and storing:**

Wash hands thoroughly with soap and water after use. Avoid contact with eyes.

**Other Precautions:**

Avoid prolonged exposure to temperatures above 115° F to maintain product activity.

**Section 8 – Control Measures**

**Respiratory Protection (Specify Type):** Normal Room Ventilation

**Eye Protection:** Use protective glasses to avoid contact.

**Work / Hygienic Practices:** None except as noted above.

**Protective Gloves:** None required.

**Other Protective Clothing or Equipment:** None required.

**Ventilation: Local Exhaust?** N/A

**Mechanical (General)?** N/A

**Special?** N/A

**Other?** N/A

**Section 9 – Transportation Information**

**Hazardous Materials Description/Proper Shipping Name:** NOT REGULATED

**Hazard Class:** Not Applicable

**Identification Number:** Not Applicable

**Required Label Text:** Not Applicable.

**Hazardous Substances/Reportable Quantities:** Not Applicable



**K-37 GRANULAR AND LIQUID SEPTIC TANK TREATMENT**

Biological activity in septic tanks is easily thrown out of balance when excessive water, harmful detergents or other harmful chemicals enter the system. K-37 Septic Tank Treatment is specifically designed to restore the natural balance within septic tanks by promoting the efficient and rapid breakdown of solids, thereby reducing sludge and scum levels and resulting in reduced odors, less clogs and more efficient system operation.



**MATERIAL SAFETY DATA SHEET CONFORMS WITH OSHA FORM OMB NO. 1218-0072**

**K-37 GRANULAR SEPTIC SYSTEM TREATMENT**

**IDENTITY (As Used on Label and List)**  
 GRANULAR SEPTIC SYSTEM TREATMENT – K-37

**Date Prepared** – 11/27/07  
**Reviewed** -04/25/2013  
**Person Preparing Document** – Steven Smith

**Section 1**

**Manufacturer's name**

Roebic Laboratories, Inc.

**Address (Number, Street, City, State, and ZIP Code)**

25 Connair Road, PO Box 927  
 Orange, CT 06477

**Emergency Telephone Number**

1-203-795-1283

**Telephone Number for Information**

1-203-795-1283

**Section 2 - Hazardous Ingredients / Identity Information**

**Hazardous Components (Specific Chemical Identity; Common Name(s)):**

**INGREDIENTS CAS NUMBER PERCENT**

Viable Bacteria (non-pathogenic Bacillus and non-pathogenic Pseudomonas strains on wheat bran base 116469-86-4 15-25%  
 Sodium Bicarbonate 144-58-8 75-85%

**Section 3 - Physical / Chemical Characteristics**

**Boiling Point** – N/A

**Vapor Pressure (mm Hg.)** – N/A

**Vapor Density (AIR = 1)** - N/A

**Solubility in Water** – 90% viable bacteria on wheat bran carrier.

**Specific Gravity (H2O = 1)** – 1.4

**Melting Point** – N/A

**MATERIAL SAFETY DATA SHEET CONFORMS WITH OSHA FORM OMB NO. 1218-0072**

**K-37 GRANULAR SEPTIC SYSTEM TREATMENT**

**Section 3 - Physical / Chemical Characteristics (cont'd)**

**Evaporation Rate (Butyl Acetate = 1) - N/A**

**Appearance & Odor – Tan powder, earthy odor**

**Section 4 - Fire & Explosion Hazard Data**

**Flash Point Method Used – N/A**

**Extinguishing Media – N/A**

**Special Fire Fighting Procedures - Water, CO<sub>2</sub>, dry chemical**

**Unusual Fire & Explosion Hazards - None**

**Flammable Limits - LEL UEL - N/A**

**Section 5 - Reactivity Data**

**Stability – Stable under normal conditions.**

**Incompatibility (Materials to Avoid):**

Strong acids or alkali may kill bacteria.

**Hazardous Polymerization – None**

**Conditions to Avoid – Store below 90<sup>o</sup> F**

**Hazardous Decomposition of By-products - None**

**Section 6 - Health Hazard Data**

**Route(s) of Entry: Inhalation? Yes Skin? Yes Ingestion? Yes**

**Health Hazards (Acute & Chronic):**

**Chronic – Prolonged or repeated exposure may cause allergic dermatitis.**

**Acute - Skin Contact: Possible infection of open wounds.**

Eye Contact: Irritation possible from dust.

Ingestion: Little or no effect in small amounts.

**Carcinogenicity: NTP? N/A IARC Monographs? N/A OSHA Regulated? N/A**

**Signs & Systems of Exposure:**

Dermal: Redness, Other signs of topical infection

Eyes: Redness, Itching, Other signs of infection

**Medical Conditions Generally Aggravated by Exposure – Asthma, Lung disease may be aggravated by dust.**

**Emergency & First Aid Procedures:**

Skin Contact: Wash with soap and water (Bacteria are susceptible to several antibiotics).

Eye Contact: Flush with plenty of water, contact physician (Bacteria are susceptible to many antibiotics).

**Section 7 - Precautions for Safe Handling & Use**

**Steps to be taken in case material is released or spilled:**

Wear nuisance respirator while sweeping up powder. Avoid skin and eye contact. Wash skin and clothes with soap and water.

**Waste Disposal Method:**

Dispose in accordance with all state, local, and Federal laws.

**Precautions to be taken in handling and storing:**

Wash hands thoroughly with soap and water after use. Avoid contact with eyes.

**Other Precautions:**

None other than those listed in Section 8. Use good hygiene practices when handling live organisms.

**Section 8 - Control Measures**

**Respiratory Protection (Specify Type): Normal Room Ventilation**

**Ventilation: Local Exhaust? Yes**

**Mechanical (General)? None**

**Special? No**

**MATERIAL SAFETY DATA SHEET CONFORMS WITH OSHA FORM OMB NO.  
1218-0072  
K-37 GRANULAR SEPTIC SYSTEM TREATMENT**

**Section 8 - Control Measures (cont'd)**

**Other?** None

**Eye Protection:** Use protective glasses to avoid contact.

**Work / Hygienic Practices:** Avoid creation of dust.

**Protective Gloves:** If prolonged exposure is anticipated.

**Other Protective Clothing or Equipment:** As mentioned in Section 7.

**MATERIAL SAFETY DATA SHEET CONFORMS WITH OSHA FORM OMB NO.  
1218-0072**

**K-37 SEPTIC TANK TREATMENT  
IDENTITY (As Used on Label and List)**

Roebic K-37 Septic Tank Treatment

**Date Prepared –** 07/01/98

**Reviewed** 04/03/2013

**Person Preparing Document –** Steven Smith

**Section 1**

**Manufacturer's name**

Roebic Laboratories, Inc. CHEMTREC

**Emergency Telephone Number**

1-800-424-9300

**Address (Number, Street, City, State, and ZIP Code) Telephone Number for Information**

25 Connair Road, PO Box 927

1-203-795-1283

Orange, CT 06477

**Section 2 - Hazardous Ingredients / Identity Information**

**Hazardous Components (Specific Chemical Identity; Common Name(s)):**

This product is aqueous suspension containing non-pathogenic laboratory controlled bacteria culture, and a few fermentation by-products. Organisms used are non-pathogenic, but can cause infection when in contact with open wounds. These organisms are susceptible to many commonly used antibiotics.

**Section 3 - Physical / Chemical Characteristics**

**Boiling Point** - 212° F

**Vapor Pressure (mm Hg.)** - Same as water.

**Vapor Density (AIR = 1)** - Same as water.

**Solubility in Water** - 99%

**Specific Gravity (H<sub>2</sub>O = 1)** - 1

**Melting Point** - N/A

**Evaporation Rate (Butyl Acetate = 1)** - Same as water.

**Appearance & Odor** - Slightly hazy, slightly earthy odor.

**Section 4 - Fire & Explosion Hazard Data**

**Flash Point Method Used** - N/A

**Extinguishing Media** - N/A

**Special Fire Fighting Procedures** - N/A

**Unusual Fire & Explosion Hazards** - N/A

**Flammable Limits** - N/A LEL UEL

**Section 5 - Reactivity Data**

**Stability** – Stable

**Incompatibility (Materials to Avoid):**

Strong acids or alkali may inactivate bacteria cultures.

**MATERIAL SAFETY DATA SHEET CONFORMS WITH OSHA FORM OMB NO. 1218-0072**

**K-37 SEPTIC TANK TREATMENT**

**Section 5 - Reactivity Data (cont'd)**

**Hazardous Polymerization** - Will not occur.

**Conditions to Avoid** - N/A

**Hazardous Decomposition of By-products** – None

**Conditions to Avoid** - N/A

**Section 6 - Health Hazard Data**

**Route(s) of Entry: Inhalation?** N/A **Skin?** Yes **Ingestion?** Yes

**Health Hazards (Acute & Chronic):**

**Chronic** - N/A

**Acute** - Skin Contact: Possible Dermal Sensitivity

Eye Contact: Possible Infection

Ingestion: Possible GI Tract Irritation

**Carcinogenicity: NTP?** N/A **IARC Monographs?** N/A **OSHA Regulated?** No

**Signs & Systems of Exposure:**

Dermal: Redness, Other signs of topical infection

Eyes: Redness, Itching, Other signs of infection

**Medical Conditions Generally Aggravated by Exposure** - N/A

**Emergency & First Aid Procedures:**

Skin Contact: Wash with soap and water.

Eye Contact: Flush with plenty of water, contact physician.

**Section 7 - Precautions for Safe Handling & Use**

**Steps to be taken in case material is released or spilled:**

Wash down drain with water or use chemical absorbent and sweep up. Disposal must be in accordance with local, state, and federal regulations.

**Waste Disposal Method:** Drain, Sewer Line, or Open Ground

**Precautions to be taken in handling and storing:**

Wash hands thoroughly with soap and water after use. Avoid contact with eyes.

**Other Precautions:**

Avoid prolonged exposure to temperatures above 115° F to maintain product activity.

**Section 8 - Control Measures**

**Respiratory Protection (Specify Type):** Normal Room Ventilation

**Ventilation: Local Exhaust?** N/A

**Mechanical (General)?** N/A

**Special?** N/A

**Other?** N/A

**Eye Protection:** Use protective glasses to avoid contact.

**Work / Hygienic Practices:** None except as noted above.

**Protective Gloves:** None required.

**Other Protective Clothing or Equipment:** None required.