



UNIT LABEL

**GENERAL IONICS®
MODEL MIVSH-12
BACTERIOSTATIC WATER CONDITIONER
WITH HYGENE®**

*Inhibits the growth of bacteria within the ion exchange softener
filter medium for municipally treated water.*

CAUTION: KEEP OUT OF REACH OF CHILDREN

EPA Reg. No. 35800-9 EPA Est. No. 35800 PA 01

Storage of HYgene® Material: Store in closed container which excludes moisture
and chemical fumes

Active Ingredient: Silver as metallic	0.07%
Inert Ingredients: Cation Exchange Resin	80.00%
Gravel	13.33%
Activated Carbon	6.60%
Total Inert Ingredients	99.93%

Directions For Use: See Homeowner's Manual.

Disposal Of Spent Media: Remove HYgene® media from top of filter bed and place
in suitable container for disposing with trash.

Net Contents: One (1) Bacteriostatic Water Conditioner with HYgene®

Another fine product by the manufacturers of General Series Water Conditioning Equipment



IONICS
GENERAL INDUSTRIES

Route 513 & E0 Bridgville, Penna. 15017

ACCEPTED
JUN 3 1981
U.S. Environmental Protection Agency
EPA Reg. No. 35800-9

23



QUESTIONS
&
ANSWERS
ABOUT



GENERAL IONICS
BACTERIOSTATIC
WATER
CONDITIONERS

TOT 4

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JUN 23 1981
EPA Reg No. 36510-9

25



GENERAL IONICS BACTERIOSTATIC WATER CONDITIONERS

Q. First, what is a Bacteriostatic Water Conditioner?

A. A Bacteriostatic Water Conditioner is one which not only softens municipally treated water, but also inhibits the growth of bacteria within the ion exchange softening filter medium.

Q. Is there a need to inhibit the growth of bacteria in potable (drinking) water?

A. Since potable water can, by law, contain a number of harmless bacteria indigenous to municipally treated water, the potential for a build-up or growth of these bacteria trapped within the ion exchange softening filter medium does exist.

Q. Why is there a build-up of bacteria in a water conditioning unit?

A. The by-product of bacterial growth in municipally treated water, along with the bacteria itself, is primarily present in a water supply. Some trapped in the filter medium bed. After a period of time, the bacteria continue to grow and multiply, and the problem of bacterial growth in the water conditioning unit becomes more pronounced.

Q. What is in the Bacteriostatic Water Conditioner that inhibits the growth of bacteria within the filter medium?

A. The inhibiting agent is HYgene, an Environmental Protection Agency Registered Bacteriostatic Water Filter Medium. It is the exclusive property of Ionics Incorporated. Technically, HYgene is a silver impregnated granular activated carbon. A layer of HYgene is placed on top (water inlet side) of the ion exchange softening resin inside the water conditioner. The top section of the filter bed is the area where excessive bacteria growth usually takes place, especially during non-flow periods when the water is not in use, such as overnight or when the unit is unused during vacation periods. Bacterial level in ion exchange resins is a transitory phenomenon which is markedly decreased after a period of flow or a regeneration cycle.

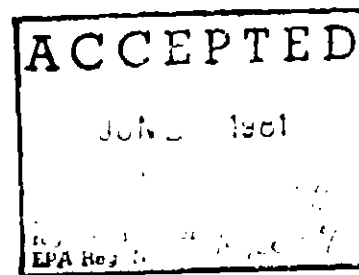
Q. What is the expected life of the HYgene Bacteriostatic Water Filter medium contained in the General Ionics Water Conditioner Unit?

A. The HYgene medium requires replacement according to the Model as follows:

- **Model MIVSH-8** - The medium must be replaced after 75,000 gallons of municipally treated water have passed through the unit, or for an average family of four, the approximate life is one year.
- **Model MIVSH-12** - The medium must be replaced after 150,000 gallons of municipally treated water have passed through the unit, or for an average family of four, the approximate life is two years.

Q. Are there any Environmental Protection Agency restrictions that I should know?

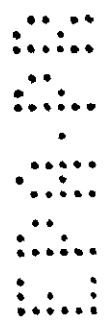
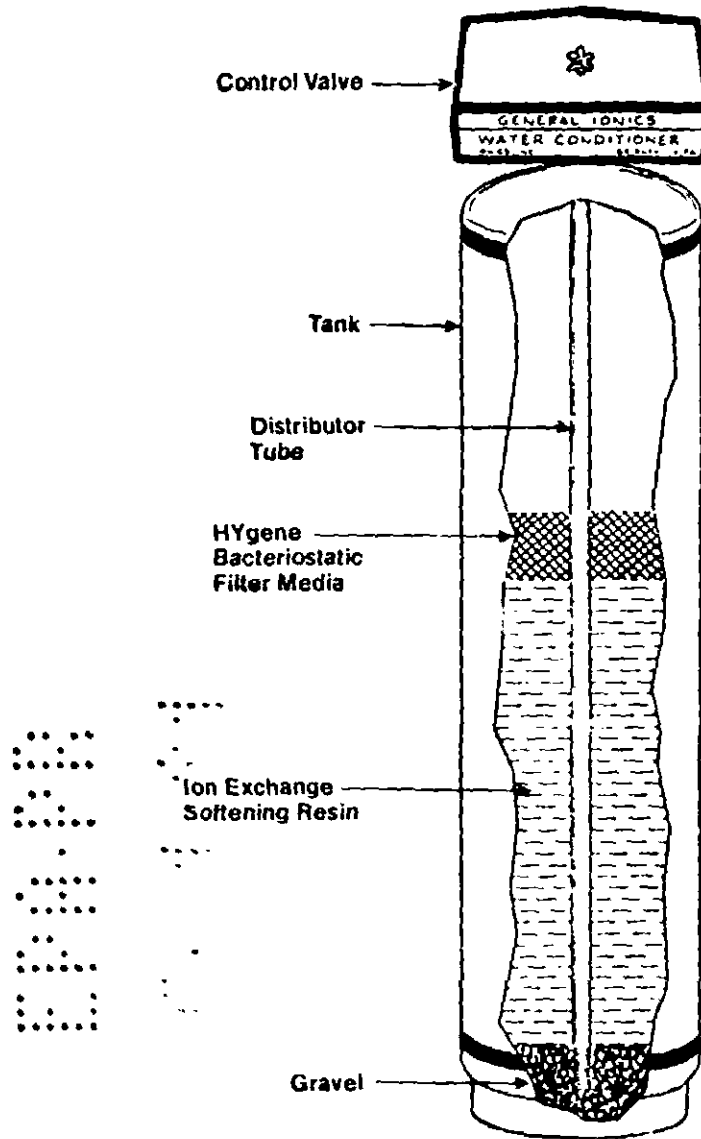
A. There are no restrictions in production of any water conditioners. The EPA has approved the use of the General Ionics Bacteriostatic Water Conditioners for use in treating municipal supply tap water which does not contain any lead.



26



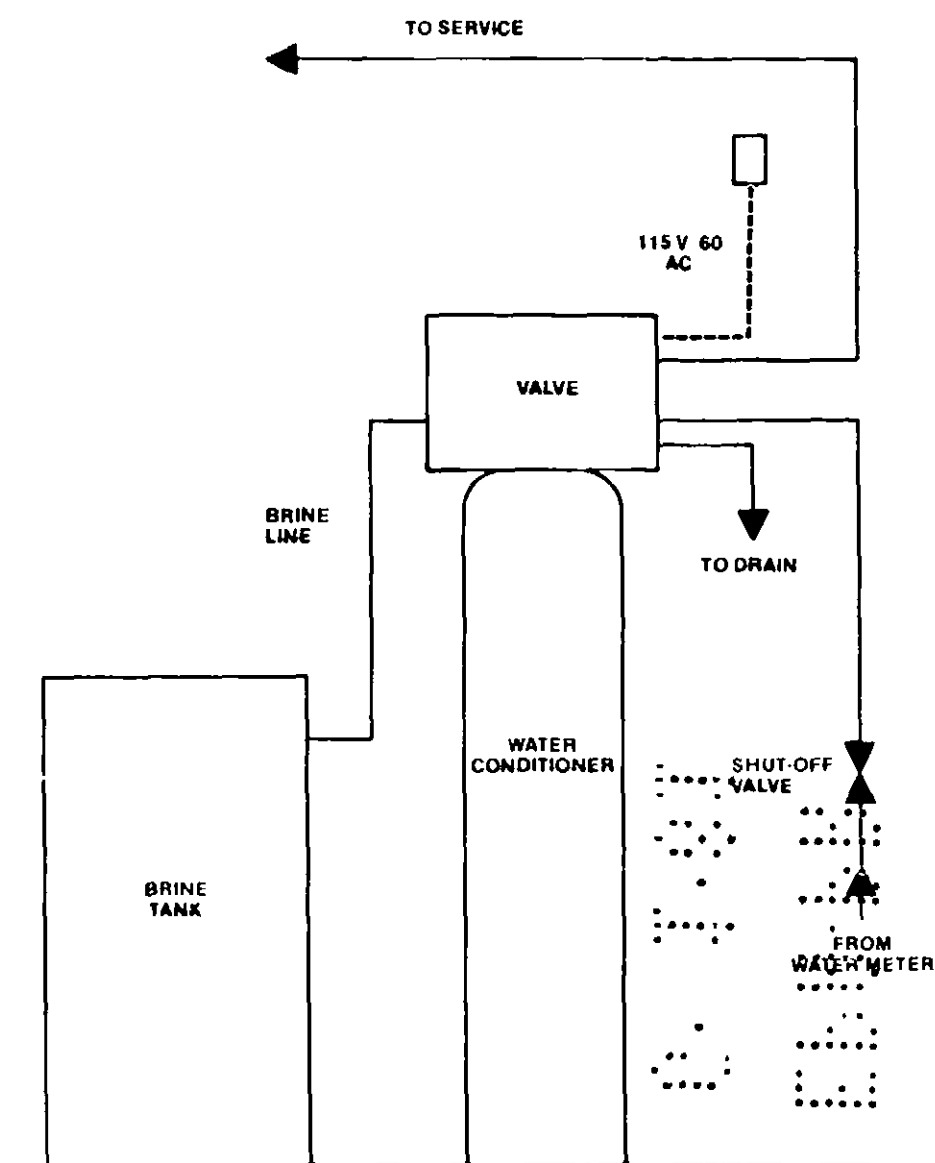
**GENERAL IONICS
MODEL MIVSH-12
BACTERIOSTATIC WATER CONDITIONERS**



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27

TYPICAL INSTALLATION FOR GENERAL IONICS BACTERIOSTATIC WATER CONDITIONER



INSTALLATION INSTRUCTIONS

GENERAL CLASSIFICATION: It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

1. **Select Location** - The location selected must be convenient for drain facilities, electrical outlet and convenient for servicing and adding salt.
2. **Unpacking** - The Bacteriostatic Water Conditioner has been shipped complete in two cartons.
One carton contains the mineral tank which is preloaded with gravel bed, high capacity ion exchange resin and HYgene Bacteriostatic Water Filter Media. The control valve is mounted on top of this tank.
The second carton contains the salt storage tank and its components.
3. Turn main water supply off and drain system.
4. Cut the main supply line and remove approximately 6 inches of existing plumbing.
5. Remove control face plate and shroud. Place the mineral tank on the three plastic leveling legs and level.
6. Move bypass lever so indicator points to bypass position. Connect the main inlet line to the opening in the valve marked "In". Connect the house service line to the opening marked "Outlet". Connect drain line.
7. Turn main supply on. Customer will have tap water while installation is being completed.
8. Install salt storage tank. Assemble brine valve - connect brine line to control valve - add water to the salt storage tank. Add salt.
9. Pull bypass lever forward until indicator points to service position and then open a cold water faucet in kitchen sink or stationary tub to expel air. When there is a steady flow of water at the faucet, continue running at 6 GPM for 15 minutes. Then press and hold the red button on the timer. This disengages the drive gear. Turn the black knob turning the large cycle dial to backwash position to expel air compressed in the unit. When there is a steady flow of water at the drain, continue running at 3 GPM for 10 minutes. Then again disengage the red button. Turn black knob and cycle valve to service position. Again open cold water tap at the kitchen sink or stationary tub. Continue running at a rate of 12 GPM for 10 minutes. If 12 GPM cannot be achieved due to low line pressure, run water at maximum flow for a total of 120 gallons. Unit is now in service for use.

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GENERAL IONICS MODEL MIVSH-12 BACTERIOSTATIC WATER CONDITIONER REGENERATION CHART

DAYS UNIT SHOULD BE SET TO REGENERATE
AND POUNDS OF SALT TO BE USED

GRAINS PER GALLON HARDNESS	2		3		4		5		6		7		8		9		10	
	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	Days to Regenerate Salt Setting	
8	12-6	12-6	12-10	12-10	12-14	12-18	12-22	6-10	6-12	6-12	6-14	6-16	6-20					
10	12-6	12-6	12-12	12-14	12-20	6-10	6-12	6-14	6-16	6-20	4-12	4-16	4-20					
12	12-6	12-8	12-14	12-20	6-10	6-12	6-14	6-18	6-22	4-14	4-16	4-20	3-14					
14	12-6	12-12	12-18	6-10	6-12	6-14	6-18	6-22	4-14	4-16	4-20	3-16	3-20					
16	12-8	12-14	12-22	6-10	6-14	6-18	6-22	4-14	4-16	4-20	3-16	3-20	3-24					
18	12-8	12-16	6-10	6-12	6-16	6-22	4-14	4-16	4-20	3-16	3-20	3-24	2-14					
20	12-10	12-20	6-10	6-14	6-20	4-12	4-16	4-20	3-16	3-20	2-12	2-16	2-18					
22	12-12	12-22	6-12	6-18	6-22	4-14	4-20	3-16	3-20	2-12	2-16	2-18	2-20					
24	12-14	6-10	6-14	6-20	4-14	4-18	3-14	3-20	2-14	2-16	2-20	1-12	1-12					
26	12-16	6-10	6-16	6-22	4-16	4-20	3-16	3-22	2-14	2-18	2-20	1-12	1-12					
28	12-18	6-12	6-18	4-12	4-18	4-22	3-18	3-22	2-14	2-18	2-20	1-12	1-12					
30	12-20	6-12	6-20	4-14	4-20	3-16	3-20	2-12	2-16	2-20	1-12	1-12	1-12					
32	12-22	6-14	6-22	4-16	4-22	3-18	3-22	2-14	2-18	2-22	1-12	1-12	1-12					
34	6-10	6-14	4-12	4-18	3-14	3-20	2-12	2-16	2-20	1-12	1-12	1-12	1-12					
36	6-10	6-16	4-14	4-20	3-16	3-22	2-14	2-18	2-20	1-12	1-12	1-12	1-12					
38	6-10	6-18	4-14	4-22	3-18	3-22	2-14	2-18	2-20	1-12	1-12	1-12	1-12					
40	6-10	6-20	4-16	3-14	3-20	2-14	2-16	2-20	1-12	1-12	1-12	1-12	1-12					
42	6-12	6-22	4-18	3-16	3-22	2-14	2-18	2-22	1-12	1-12	1-12	1-12	1-12					
44	6-12	6-24	4-20	3-18	3-24	2-16	2-20	1-12	1-12	1-12	1-12	1-12	1-12					
46	6-12	4-12	4-20	3-18	2-12	2-16	2-20	1-12	1-12	1-12	1-12	1-12	1-12					
48	6-14	4-14	4-22	3-20	2-14	2-18	2-22	1-12	1-12	1-12	1-12	1-12	1-12					
50	6-14	4-14	4-24	3-22	2-14	2-20	1-12	1-12	1-12	1-12	1-12	1-12	1-12					

Place a card or sheet of paper across the grains of hardness to the size of family. This will give you the number of days the unit should be set between regenerations and the pounds of salt to be used.

Example: 32 grains hardness 5 in family. Unit should be set to regenerate every 4 days with 16 pounds of salt.