

PM 32

ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF PESTICIDES PROGRAMS  
REGISTRATION DIVISION (TS-767)  
WASHINGTON, DC 20460

EPA REGISTRATION NO.

748-300

DATE OF ISSUANCE

SEP 23 1996

9/23/96

9/1/11

748-300

TERM OF ISSUANCE

NOTICE OF PESTICIDE:  REGISTRATION  
 REREGISTRATION  
(Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended)

NAME OF PESTICIDE PRODUCT

PPG 70 Calcium Hypochlorite  
Tablets

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

PPG Industries, Inc.  
One PPG Place 36 West  
Pittsburgh, PA 15272

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/re-registration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similiar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. Make the labeling changes listed below before you release the product for shipment:
  - a. Add the phrase "EPA Registration No. 748-300"

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

- b. Revise the "Environmental Hazards" statement to read:

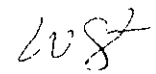
"This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estauries, oceans or public waters unless in accordance with the requirements of a National Pollutant Discharge Elination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

- 3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Sincerely yours,



Walter C. Francis  
 Acting Product Manager (32)  
 Antimicrobial Program Branch  
 Registration Division (7505C)

Enclosure

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**PPG 70 Calcium Hypochlorite Tablets**

**Dry Chlorinating Tablets for Industrial and Potable Water Treatment Applications**

- \* Controls bacteria and algae growth.
- \* Convenient & easy to use with the PPG Chlorinator

EPA Reg. No. 748-~~xxx~~ *GINN*  
 EPA Est. No. 2312-PA-1

**ACTIVE INGREDIENT:** Calcium Hypochlorite. . . 73%  
**INERT INGREDIENTS:** . . . . . 27%  
 Minimum 70% Available Chlorine

**KEEP OUT OF REACH OF CHILDREN  
 DANGER**

See additional precautionary statements on back label.

**PRACTICAL TREATMENT (First Aid):** **EYE/SKIN CONTACT:** Flush with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. For eye contact, get immediate medical attention. If skin irritation occurs, get medical attention. **INHALATION:** Remove to fresh air. If signs of irritation or discomfort occur, take immediately to a hospital or physician. **SWALLOWING:** If swallowed, drink large quantities of water. Do not induce vomiting. Take immediately to a hospital or physician. If vomiting occurs, administer additional water. If unconscious, or in convulsions, take immediately to a hospital. Do not attempt to induce vomiting or give anything by mouth to an unconscious person.

**NET WT. 100 lbs. (45 kg)**

**Manufactured by  
 PPG INDUSTRIES, INC.  
 One PPG Place  
 Pittsburgh, PA 15272**

**Emergency Telephone Number: (304) 843-1300  
 PPG Toll-Free Hotline: 1-800-245-2974**

ACCEPTED  
 with COMMENTS  
 in EPA Letter Dated:

*SEP 23 1996*

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

*748-300*

**PRECAUTIONARY STATEMENTS -  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS -**

**DANGER!** \* Highly Corrosive \* Causes Skin and Eye Damage \* May be Fatal if Swallowed \* Irritating to Nose and Throat \* Wear goggles or face shield and rubber gloves when handling. Avoid breathing dust. Remove and wash contaminated clothing and shoes before reuse.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

**PHYSICAL AND CHEMICAL HAZARDS:** Strong oxidizing agent! Mix only with water. Use only a clean, dry utensil made of metal or plastic each time product is taken from the container. **Do not add this product to any dispensing device containing remnants of any other product. Such use may cause violent reaction leading to fire or explosion.** Contamination with moisture, acids, organic matter, other chemicals or easily combustible materials such as petroleum or paint products may start a chemical reaction with generation of heat, liberation of hazardous gases and possible generation of a fire or explosion. In case of contamination or decomposition, do not reseal container. If possible isolate container in open air or well-ventilated area. Flood with large volumes of water, if necessary.

**STORAGE AND DISPOSAL:** Read before using. Keep in original container in a cool, dry, well-ventilated place. Keep container closed when not in use. Keep away from heat sources, sparks, open flames and lighted tobacco products. Use only a clean, dry utensil made of metal or plastic each time product is taken from the container. **Container Disposal** - Do not reuse container. Residual material remaining in empty container can react to cause fire. Thoroughly flush empty container with water then destroy by placing in trash collection. **Pesticide Disposal** - Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water, food, or feed by storage or disposal. **In Case of Fire** - Drench with water. Calcium hypochlorite supplies oxygen; therefore, attempts to smother fire with a wet blanket, carbon dioxide, or a dry chemical extinguisher are ineffective. **In Case of Spill or Leak** - Use extreme caution. Contamination may cause fire or violent reaction. If fire or reaction occurs in area of spill, douse with plenty of water. Otherwise sweep up spilled material, using a clean, dry shovel and broom and dissolve spilled material in water. Then immediately use solution as directed.

**DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**DISINFECTION OF DRINKING WATER (Potable Water):**

**PUBLIC SYSTEMS**

Mix a ratio of 1 ounce of this product to 6000 gallons of water. Begin feeding this solution with a hypochlorinator until a free available chlorine residual of at least 0.2 ppm and no more than 0.6 ppm is attained throughout the distribution system. Check water frequently with a chlorine test kit. Bacteriological sampling must be conducted at a frequency no less than that prescribed by the National Interim Primary Drinking Water Regulations. Contact your local Health Department for further details.

**INDIVIDUAL SYSTEMS**

**Dug Wells** - Upon completion of the casing (lining) wash the interior of the casing (lining) with a 100 ppm available chlorine solution using a stiff brush. This solution can be made by thoroughly mixing 1 ounce of this product into 40 gallons of water. After covering the well, pour the sanitizing solution into the well through both the pipe sleeve opening and the pipeline. Wash the exterior of the pump cylinder also with the sanitizing solution. Start pump and pump water until strong odor of chlorine in water is noted. Stop pump and wait at least 24 hours. After 24 hours flush well until all traces of chlorine have been removed from the water. Contact your local Health Department for further details.

**INDIVIDUAL WATER SYSTEMS**

**Drilled, Driven & Bored Wells** - Run pump until water is as free from turbidity as possible. Pour a 100 ppm available chlorine sanitizing solution into the well. This solution can be made by thoroughly mixing 1 ounce of this product into 40 gallons of water. Add 5 to 10 gallons of clean, chlorinated water to the well in order to force the sanitizer into the rock formation. Wash the exterior of pump cylinder with the sanitizer. Drop pipeline into well, start pump and pump water until strong odor of chlorine in water is noted. Stop pump and wait at least 24 hours. After 24 hours flush well until all traces of chlorine have been removed from the water. Deep wells with high water levels may necessitate the use of special methods for introduction of the sanitizer into the well. Consult your local Health Department for further details.

**Flowing Artesian Wells** - Artesian wells generally do not require disinfection. If analyses indicate persistent contamination, the well should be disinfected. Consult your local Health Department for further details.

b/h

### EMERGENCY DISINFECTION

- When boiling of water for 1 minute is not practical, water can be made potable by using this product. Prior to addition of the sanitizer, remove all suspended material by filtration or by allowing it to settle to the bottom. Decant the clarified, contaminated water to a clean container and add 1 grain of this product to 1 gallon of water. One grain is approximately the size of the letter "O" in this sentence. Allow the treated water to stand for 30 minutes. Properly treated water should have a slight chlorine odor, if not, repeat dosage and allow the water to stand an additional 15 minutes. The treated water can then be made palatable by pouring it between clean containers for several times.

### OTHER CALCIUM HYPOCHLORITE USES

Calcium Hypochlorite is also used in the sanitization of water systems, municipal water mains, sewage and industrial waste treatment, pulp bleaching, sanitization in the food industry, restaurants, dairies, and hospitals, odor and taste control in potable water systems, algae control in industrial cooling water systems, and general industrial sanitization. For specific literature on these and other accepted uses, write to: PPG Industries, Inc., One PPG Place, Pittsburgh, Pennsylvania 15272.

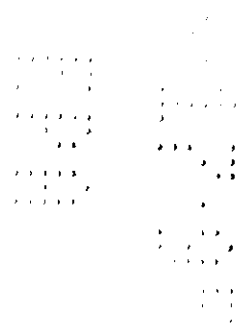
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### CHLORINATOR USE INSTRUCTIONS FOR PPG 70 Calcium Hypochlorite Tablets

1. Install the PPG chlorinator per the instruction manual.
2. Load tablets into the PPG chlorinator.
3. Determine the water flow rate of your system in gpm.
4. Determine the chlorine demand of your system.
  - a. When you know the ppm chlorine demand required, calculate the lbs/hr chlorine delivery by the following:  $\text{water flow (gpm)} \times \text{ppm Chlorine Demand} \times 0.0005 = \text{lbs/hr chlorine}$
  - b. If you are currently using chlorine gas, calculate usage on a lbs/hr basis.
  - c. If you are currently using sodium hypochlorite, calculate the usage as (at 10% strength):  $\text{gallons/hr} = \text{lbs/hr chlorine}$
5. Determine the flow rate of water necessary through the chlorinator. Multiple chlorinators may be used for higher delivery rates. (Use the graphs in the Industrial Applications Manual to assist you in determining the flow rates.)
6. Determine that there is a chlorine residual (i.e., 0.5 ppm for drinking water) in the water stream that meets requirements.
7. Operate the chlorinator per the instruction manual.

#### PPG 70 Calcium Hypochlorite Tablets Delivery

Graphs are representative of average tested delivery values. Multiply the lbs/hr chlorine delivered by 1.5 to determine the lbs/hr of tablets used.



# The PPG Chlorinator



## Instruction Manual Model PPG N-200

### A true erosion feeder for uniform chlorine delivery to pool water

- For use with PPG 3" Tablets
- Easy to use
- Dependable Operation
- Accurate Chlorine Delivery

The PPG Chlorinator N-200 is an automatic feeder designed to accurately and dependably feed PPG 3" Tablets. The "true erosion feeder" design of the PPG Chlorinator results in accurate chlorine delivery due to the directed flow of water over a constant tablet surface area. The unique and simple design contains no moving parts to wear or break and no small orifices to clog, resulting in extremely dependable and easy operation. The combination of the Feeder design and the patented slow-release characteristics of PPG 3" Tablets enables consistent and uniform chlorine delivery.

#### **DANGER:**

**DO NOT MIX CHEMICALS!**

The PPG Chlorinator N-200 is designed for use with PPG 3" Tablets. Do not use with stabilized chlorine or bromine tablets or other pool chemicals. Fire or explosion could result.

#### **IMPORTANT:**

PPG recommends the PPG Chlorinator N-200 be professionally installed.

#### **NOTE:**

This device is NSF listed for swimming pools and spas. Maximum delivery 6 lbs. of Calcium Hypochlorite tablets/day. For NSF installation, a flow meter must be installed on the Chlorinator Inlet Line and PPG Chlorinating Tablets N-200 must be used.

### Warranty

PPG Industries, Inc. ("PPG") warrants to the original retail purchaser ("the owner") of the PPG Chlorinator (N-200) that the product shall be free of defects in material and workmanship for a period of 6 months from the date of purchase. (Purchaser must be able to prove/establish the date the product was purchased to ensure rights under warranty.)

EXCEPT AS SPECIFICALLY PROVIDED HEREIN, THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. THIS WARRANTY DOES NOT PROVIDE FOR, AND PPG SHALL NOT BE LIABLE FOR, THE PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. ALL WARRANTIES WHICH MAY BE IMPLIED BY LAW ARE EXPRESSLY LIMITED TO THE PERIOD OF THIS WARRANTY. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

This warranty provides only for the repair or replacement of the N-200 at PPG's expense. If the N-200 contains a defect or malfunction which, after a reasonable number of attempts, PPG is unable to remedy, PPG shall at PPG's option, refund the purchase price or replace the N-200.

To obtain service on this warranty, please contact the dealer from whom you purchased your N-200. If for any reason you are not completely satisfied with the results, write to: PPG Pool Care Hotline, PPG Industries, Inc., One PPG Place, Pittsburgh, PA 15272.

This warranty shall not apply to (i) any defects, malfunctions or other failures when caused by mishandling (not resulting from defect or malfunction) while in the possession of the user; (ii) or when unreasonably used (including failure to provide reasonable and necessary maintenance); or (iii) resulting from use in a manner contrary to the instructions accompanying the N-200.

Buyer assumes all risks for use of the N-200 not in strict accordance with the labeling and instructions or due to abnormal or unforeseeable circumstances.



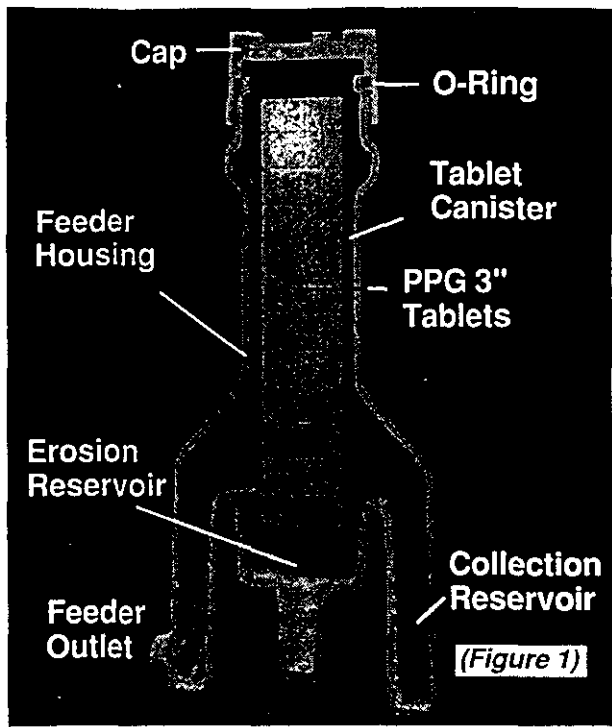


## How it Works

(See Figure 1)

The PPG Chlorinator (Feeder) provides controlled, continuous and uniform feeding of chlorine into pool water. The Feeder's major components and their functions are explained below.

The **Tablet Canister** holds 12 PPG 3" Tablets (8 lbs.). The Tablet Canister slides down into the **Feeder Housing** and hangs from the lip at the top of the Housing, leaving the bottom of the Tablet Canister submerged in water. Openings at the bottom and sides of the Tablet Canister allow pool water to contact the bottom tablets. The **Cap** screws down onto the **O-Ring** to seal the feeder for operation. As water enters the feeder it fills the **Erosion Reservoir**, erodes the bottom tablets and spills over into the **Collection Reservoir** allowing treated water to return to the pool circulation system. As the bottom tablets erode the tablet stack drops down to replace them. The Feeder is not under pressure since it is sealed and returns to the suction side of the pump. This ensures that the feeder will not flood with water and the tablet stack will remain dry until needed. The **Control Valve** adjusts chlorine delivery by changing the flow rate of water entering the feeder to erode the tablets.



## Positioning and Installation

(See Figure 2)

Please read all instructions before proceeding.

### Positioning

The Feeder may be installed above or below the swimming pool water level. The Feeder is designed to take in circulating pool water after it passes through the pump, and return treated water to the suction side of the pump. Install the Feeder Inlet Line at a point after the filter, but before the heater. **SLIGHT NEGATIVE PRESSURE (VACUUM) MUST BE PRESENT AT THE PUMP SUCTION FOR PROPER OPERATION.**

### A. Pre-Installation Instructions:

1. Complete Warranty Card and return to PPG.
2. Unpack: Feeder Housing, Tablet Canister, Cap, Instruction Manual.
3. To proceed you will need the following materials not included with the feeder:

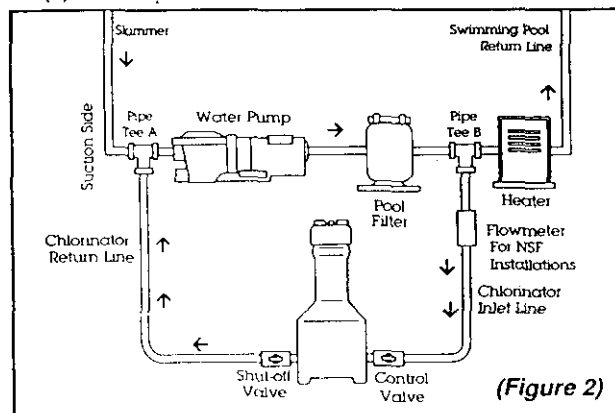
Silicone Lubricant for the O-Ring  
PVC primer and solvent cement

Teflon tape for sealing threaded fittings

Use PPG Installation Kit IK-I for easier pool installation

For rigid pipe installation you will also need:

- (2) PVC pipe Tees of your pool piping size
- (1) PVC Shut-off valve for chlorinator return line



- (1) PVC Reducing bushing(s) to 1-1/2" for pipe Tee A
  - (1) PVC Reducing bushing(s) to 1/2" for pipe Tee B
  - (1) 1-1/2" PVC pipe adaptor for the chlorinator outlet
  - (\*) 1/2" PVC pipe and fittings for chlorinator feed line
  - (\*) 1-1/2" PVC pipe and fittings for chlorinator return line
- Optional: PVC pipe unions for disconnecting chlorinator for winterizing

For NSF installation: A flow meter must be installed on the chlorinator inlet line and PPG Chlorinating Tablets N-200 must be used.

If anchoring the chlorinator housing, you will need four (4) 1/4" x 3" bolts and washers.

### B. Installation

1. Locate the unit near the pump, where it will be readily accessible to the operator. If you desire, you may anchor the feeder to the ground through the slots in the feet using bolts and washers.
2. Using PVC solvent, cement the 1/2" X 4" long PVC pipe to the 1/2" control valve and into the 1/2" elbow on the chlorinator.
3. Turn off the pump, and stop waterflow from the skimmer and swimming pool return line.
4. Install two Pipe Tees in the circulation system of the swimming pool. Position Pipe Tee A on the suction side of the pump and Pipe Tee B after the filter but before the heater.
5. Install a 1-1/2" Shut-off Valve on the Feeder return line: to the suction side of the pump, or connect directly to the chlorinator outlet.
6. Connect the chlorinator outlet to Pipe Tee A and Chlorinator inlet to pipe Tee B.
7. Remove the Cap from the top of the Feeder. Clean and lubricate the O-Ring with silicone lubricant only and place it on top of the Feeder Housing.
8. Replace Cap, and hand-tighten to seal the Feeder.
9. Close the Control Valve on the Feeder, and the Shut-off Valve on the Feeder Return Line. The Feeder is now isolated from the circulation system.

10. Restore waterflow through skimmer and swimming pool return lines. Restart the pump.
11. Open the Shut-off Valve on the Feeder return line. (There may be air in the pump strainer pot for a few seconds.)

12. Open the Control Valve on the Feeder. There will now be water moving through the Feeder. Check all fittings for leaks.
13. Installation is now complete.

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## Operation

Before operating the PPG Chlorinator, properly balance your pool water and establish Free Available Chlorine at 1-3 ppm.

The chlorine demand of your pool varies with factors such as sunlight, bather load, rain, water temperature, etc. As a result, the Control Valve setting on the Chlorinator may have to be adjusted over time to meet changing chlorine demand. Recommended start-up settings for different size pools are listed in the chart below.

Pool Size (Gal.)	Initial Control Valve Settings	Nominal <sup>(1)</sup> Flow Rate GPM	Tablet <sup>(2)</sup> Delivery Rate Lb/day
	OFF	0	0.00
28,000	1/8 open	2	1.4
46,000	1/4 open	3	2.3
92,000	1/2 open	4	4.3
120,000	3/4 open	5	6.0

<sup>(1)</sup>The rate at specific setting will vary depending on pool circulation equipment. <sup>(2)</sup>Chart represents 24-hour pump operation. For example, with 12-hour pump operation delivery would be half of chart value. A 3/4 open setting would deliver 3.0 lb/day instead of 6.0 lb/day.

Spa Delivery Rate	Control Valve Settings	Tablets Delivery Rate Lb/day
	1/8 open	1.2
	1/4 open	3.3
	1/2 open	4.6
	3/4 open	6.0

**UNDER NORMAL OPERATING CONDITIONS WITH THE PUMP ON, THE INSIDE OF THE FEEDER WILL BE UNDER SLIGHT NEGATIVE PRESSURE. FOR SAFETY THE CHLORINATOR HAS BEEN DESIGNED TO WITHSTAND 30 PSI PRESSURE, BUT THE UNIT SHOULD NOT BE UNDER ANY PRESSURE IF OPERATED ACCORDING TO INSTRUCTIONS. THE FEEDER**

## Cleaning

The PPG Chlorinator should be cleaned at least at the end of every season to remove residue that may accumulate inside the Feeder or hoses. The Tablet Canister may require more frequent cleanings. Cleaning can be accomplished by soaking in a dilute acid solution.

### To clean the Feeder while installed:

1. Verify the Shut-off Valve is open and the pump is running.
2. Isolate the Feeder from the pool circulation system by closing first the Control Valve and then the Shut-off Valve.
3. Remove the Cap.
4. Remove all tablets from the Tablet Canister. Rinse the Tablet Canister in water to remove any tablet residue.
5. Rinse the Feeder with water and, with the Cap off, open the Shut-off Valve temporarily to drain the Feeder.
6. Turn off pump.
7. Prepare 2 gallons of dilute acid solution by adding one

**MUST BE ISOLATED FROM THE CIRCULATION SYSTEM BEFORE THE CAP IS REMOVED. THIS IS ACHIEVED BY CLOSING THE CONTROL VALVE AND SHUT-OFF VALVE IN THE CORRECT ORDER. FOLLOW DIRECTIONS CLOSELY.**

### To refill the Feeder

1. Verify Shut-off Valve is open and pump is running. Flush the Feeder by opening the Control Valve to full open (setting 5) for 1 minute.
2. Turn the Control Valve to full OFF position.  
**Important:** Close Control Valve before closing Shut-off Valve to prevent over-pressurization of Feeder.
3. Close the Shut-off Valve on the return line.
4. Remove the Cap. (Be careful not to inhale fumes)
5. Fill the Tablet Canister with 3" Tablets. The tablets should be stacked flat and not on end or sideways (see Figure 1).
6. Replace Cap making sure that the O-Ring is clean and in place. Hand-tighten. Lubricate the O-Ring as needed using silicone lubricant only.

### To operate the Feeder

**Important:** Open Shut-off Valve before opening Control Valve to prevent over-pressurization of feeder.

1. Open the Shut-off Valve on the Feeder return line.
2. Adjust the Control Valve to the desired setting. (Recommended start-up settings for pools of various sizes are listed in the Instruction Manual.) Initially check the Free Available Chlorine daily for the first week to determine the best setting for your pool.
3. Adjust Control Valve and refill Tablet Canister as needed to maintain Free Available Chlorine between 1-3 ppm. Check the Feeder at least weekly to monitor tablet supply and ensure holes in bottom of tablet canister are free of residue.
4. Maintain pH of pool water between 7.2 -7.6.

quart of muriatic acid to 7 quarts of water. (Never add water to acid). Wear rubber gloves, and rinse all equipment thoroughly when finished.

8. Soak the Tablet Canister in the dilute acid to remove scale. Make sure the holes in the bottom of the canister are free of residue. Use a pointed instrument to clear them if necessary. Rinse with water.
9. Carefully pour the dilute acid solution into the Feeder. Replace and hand tighten the Cap. Open the Shut-off Valve. Let soak for 30 minutes.
10. After 30 minutes, turn on the Pump, and with the Shut-off Valve open, adjust the Control Valve to setting 2. Let the feeder flush for 30 minutes.
11. After 30 minutes, first close the Control Valve, then the Shut-off Valve, and remove the Cap. Temporarily open the Shut-off Valve to drain the Feeder. Rinse the feeder with water and drain again. Cleaning is now complete.
12. Check that the alkalinity of your pool and that the pH is between 7.2-7.6.

# Winterizing

To protect the Feeder from freezing temperatures you must:

1. Clean the Feeder as per Instruction Manual.
2. As with other pool and spa equipment, all water must be removed to prevent freezing and cracking.

3. Remove water from feeder by either disconnecting feeder or clearing with air.
4. Store unit indoors if possible.

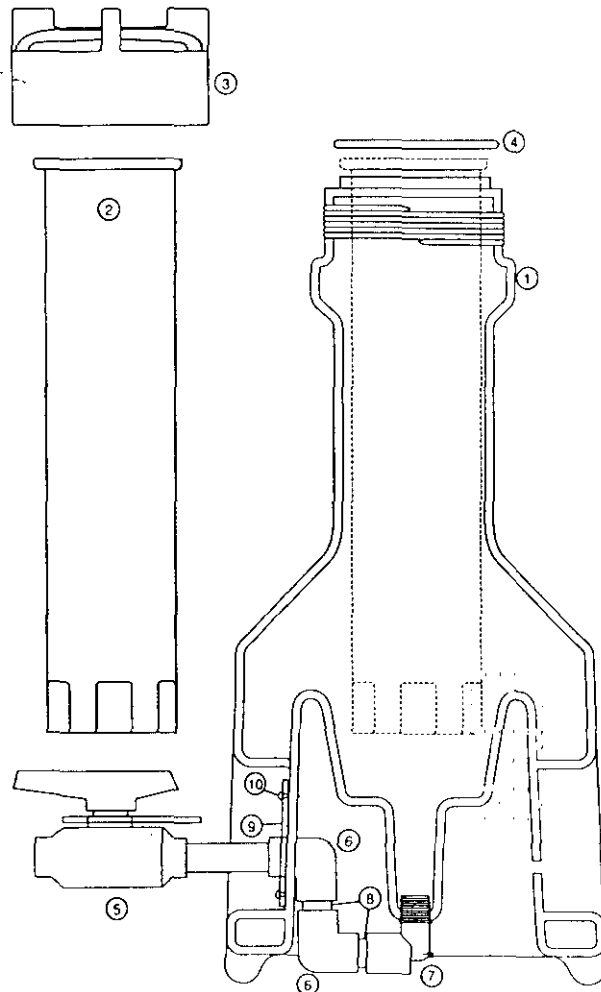
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# Troubleshooting

Condition	Cause	Solution
Low free chlorine (FAC<1ppm)	A. Feed rate too low	a. Adjust Control Valve to higher setting
	B. Insufficient tablets	b. Refill Tablet Canister with PPG 3" Tablets and check more frequently
	C. Shut-off Valve on return line is closed	c. Open Shut-off Valve to allow flow through Feeder
	D. Filter pressure is high, water flow low	d. Backwash filter
	E. Pump circulation time is insufficient	e. Increase pump circulation time
	F. Tablet Canister holes plugged	f. Physically clear or clean with a dilute acid (see Cleaning)
	G. Plugging of Feeder inlet or outlet	g. Clean Feeder with dilute acid (see Cleaning)
High free chlorine (FAC>3ppm)	A. Feed rate too high	a. Adjust Control Valve to lower setting
Air leaks	A. Outlet connector and fittings not installed properly	a. Tighten or otherwise seal connections
	B. Cap is not sealing	b. Clean and lubricate O-ring. Replace if damaged
Tablets hanging up in Tablet Canister	A. Residue build-up in Tablet Canister	a. Clean Tablet Canister with dilute acid (see Cleaning)
	B. Tablets not stacked flat	b. Restack Tablets (see Figure 1)

# PPG Chlorinator N-200

Ref No.	Part	Parts No.
<b>Main Components</b>		
1.	Feeder Housing	PPG N100 -1
2.	Tablet Canister	PPG N200-13
3.	Cap	PPG N100 -4-1
4.	O-Ring 4 225 ID X 0.210 W Viton	PPG N100 -6-1
<b>Fittings and Assembly Components</b>		
5.	Control Valve and Indicator Plate 1/2" S X S PVC	PPG N200 -14-2
6.	Elbow (2 required) 1/2" S X S SCH 40 PVC	PPG N200 -14-3
7.	Elbow (2 required) 1/2" MPT X S SCH 40 PVC	PPG N200 -14-4
8.	Pipe 1/2" SCH 40 PVC	PPG N200 -14-5
9.	Pipe Support Plate	PPG N200 -14-6
10.	Screws (4 required)	PPG N200 -14-7



PPG Industries, Inc.  
One PPG Place  
Pittsburgh, PA 15272

1-800-421-2025

L407M-1092B