

# OdorXit® ClO<sub>2</sub> Instruction Manual

Because ClO<sub>2</sub> gas can not be bottled, compressed or shipped, OdorXit® ClO<sub>2</sub> (which stands for Chlorine Dioxide) is supplied in powder form in an air tight Mylar outer package and a specially sealed Tyvek inner package to protect you from the powdered chemicals and control the rate the ClO<sub>2</sub> is produced and released. When the powder is exposed to water vapor or water, a reaction is started that produces chlorine dioxide gas. The higher the humidity or the more water you use the faster the gas will be produced. IE if an extended release packet is set in standing water, it will produce all its gas in just a few days. Despite the deceptively small size of this product it is a powerful deodorant and biocide and should be treated with considerable respect. Improper or over use can result in eye, nose and throat irritation. If you smell a bleach odor during use avoid the area, or discontinue treatment, or move the packet to another area.

## 1. OdorXit® ClO<sub>2</sub> General Usage

There are 2 versions of the product. The extended release version produces gas for 20 to 30 days and the fast release version produces the same amount of gas but in 20 to 30 hours.

Controlling the amount of water vapor entering the Tyvek package and the exact makeup of the powder in the packet determine the rate the ClO<sub>2</sub> gas is produced. ClO<sub>2</sub> is an oxidizer like Ozone (O<sub>3</sub>) without the negative side effects of Ozone.

The keys to the effective use of ClO<sub>2</sub> are:

1. To make sure the odor is being caused by an agent that will oxidize.
2. To get the ClO<sub>2</sub> to the odor causing agent.

Being a gas makes getting to the agent easy in closed spaces like in a crawl space, house, room, car, truck, box, drawer, closet, etc.

Agents that will Oxidize include but are not limited to tobacco and fire smoke, mold, spores, germs, garbage, skunk, ferret, and cat spray (but not urine odor) dog body oils (causes wet dog smell), rotting meat and vegetable matter. Specific application information is presented later in this document.

## 2. Odors in Homes, Apartments, Sports Equipment & Patent Rooms

Removing organic based odors from homes, apartments and patent rooms with ClO<sub>2</sub> gas is almost too simple. Just remove the Tyvek package from its Mylar water vapor proof outer pouch when you are ready to use it.

Place the packet on a plastic plate or cup on a counter or the floor and shut off or block the air handling system. Use a ceiling fan or small low speed desk fan to circulate the gas produced by the packet around the affected room(s). The Extend Release packet produces gas for 20 to 30 days; the Fast Release version produces the same amount of gas in 20 to 30 hours. You should not be in the area being treated when using the Fast Release version of the product.

OdorXit® ClO<sub>2</sub> works on fungus, spores, bacteria, viruses, tobacco smoke, dog body odor (wet dog smell) garbage, skunk, cat and ferret spray, nasty smells under kitchen and bathroom sinks, garbage cans, garbage dumpsters, laundry rooms and other areas where organic odors tend to collect. ClO<sub>2</sub> does not permanently work on urine odor or urine salt contamination.

## 3. Using ClO<sub>2</sub> to Remove Odors From Small Items

Removing odors from small and especially water intolerant items can be very difficult. Items like books, toys, clothing, shoes, sports equipment and memorabilia of all types that have mold, bacteria, tobacco smoke, or fire smoke odors can be recovered without further damage with OdorXit® ClO<sub>2</sub>.

Remove the inner packet from the Mylar outer packet and place it in the enclosed adhesive backed pouch on the wall of a plastic box or medal storage cabinet or school locker or equipment bag. That will contain the ClO<sub>2</sub> gas while your items are being treated. A 5 or 10 gram Extended Release packet, which lasts for 20 to 30 days, will kill the mold, bacteria and their odors in as little as 1 or 2 days. Smoke odor (both tobacco and fire smoke) will take 2 to 4 day of treatment.

## 4. Using ClO<sub>2</sub> on Moldy or Smelly Furniture

Furniture that smells of mold or mildew can be treated effectively with ClO<sub>2</sub> by using a 5 or 10 gram extended release packet. Remove the inner packet from the Mylar outer packet and place it with a small amount of water (a few drops) on a plastic plate or cup inside the furniture or drawer for a day or two per isolated space. (A 5 gram packet will deodorize an open space as large as a bathroom, car or large closet so it is plenty large enough for these small places.

When treating a roll top or secretary type desk open or remove the draws and bins in the work area so that the ClO<sub>2</sub> can get into all of the areas were the draws and bins are placed as well as the draws and bins themselves. Place the packet on a plastic plate or cup as above and close the roll top or secretary door.

If the mold is on the outside of the piece, make a tent out of a plastic drop cloth and put a 5 or 10 gram extended release packet under the tent with the piece being treated. Open or remove the all the drawers and doors so that the ClO<sub>2</sub> can get inside all the places that need odor removal. Leave undisturbed for 1 to 3 days then check for odor.

## 5. Tobacco and/or Mold in Vehicles

Using the 5 gram "Extended Release" version of OdorXit® ClO<sub>2</sub> on odors in your car or truck is an extremely simple and safe procedure. Just attach the included peel and stick plastic pouch to an inconspicuous place in your vehicle (like on the bottom of the dash board, or behind the seat in a 2 seat pickup truck) with the opening up or at least on the highest side. Open the Silver Mylar packet and remove the white Tyvek packet inside. (Never open the Tyvek packet.) Insert the 5 gram Extended Release OdorXit® ClO<sub>2</sub> packet into the pouch. If you live in a very dry climate, you should shake or spray a few drops of water onto the Tyvek packet before inserting into the pouch. This tiny amount of water is all that is needed to start the production of chlorine dioxide and begin the deodorization of your vehicle. All sizes of Extended Release OdorXit® ClO<sub>2</sub> packets produce gas for 20 to 30 days depending on the relative humidity. (The higher the humidity the shorter time it lasts.)

Using a 10 or 25 gram "Quick Release" version of OdorXit® ClO<sub>2</sub> is a bit more complex and the following instructions must be followed carefully to avoid exposing yourself to potentially dangerous levels of ClO<sub>2</sub>.

1. Empty the ash trays and clean them with detergent and water.
2. Remove personal belongings and debris from the vehicle. Vacuum the interior of the vehicle, including the floor mats and under the floor mats.
3. Wipe dust and dirt from the dashboard and other surfaces.
4. Remove the white Tyvek pouch from the foil shipping package and place it in a 12 to 16 ounce plastic cup (not foam) with a table spoon of water in the cup. Place the cup in a cup holder or other place where it will not be knocked over during the treatment.
5. Close all the doors and windows of the vehicle and wait for 1-3 hours depending on the amount of odor present.
6. Open all the doors of the vehicle, and wait for at least 5 minutes before entering the vehicle.
7. Remove the deodorizing pouch from the vehicle and either move it to another car that needs deodorizing or discard it and the cup in an outdoor refuse container. **DO NOT DISCARD POUCH INDOORS.**

Note: The Fast Release ClO<sub>2</sub> pouch will continue to produce chlorine dioxide for 12 to 24 hours. It can be reused several times during this period.

## 6. Using ClO<sub>2</sub> in Smelly or Moldy Basements

Basements and cellars are one of the primary places where mold grows in our living spaces. It makes clothing smell bad and in some cases actually damages the clothing and other fiber products stored in below grade storage places.

Using one or two 25 or 50 gram Extended Release OdorXit® ClO<sub>2</sub> packets in a basement area that has active mold or just that musty smell will not only eliminate the musty smell, it will kill any active mold and spores that are there as well. The size of the packet needed is determined by the surface area of the area and contents being treated not just the size of the room.

Using a small desk fan or box fan or ceiling fan on low to stir the air and ClO<sub>2</sub> will assure maximum benefit. Often, the only thing you will notice is the lack of musty smell when this product is working.

If you have an extreme case of mold as may be the case when a basement has been flooded by a storm or extended power failure, using the Fast Release will speed the process to just 24 hours and kill the mold, spores and germs in the open spaces. Do not enter the area being treated for 24 hours and ventilate thoroughly before re-inhabiting the treated area.

## 7. Using ClO<sub>2</sub> on Trash Containers

Closed trash containers and closed dumpsters that contain kitchen waste and other materials that are prone to producing very bad smells can be treated long term with chlorine dioxide gas. It not only controls the odor but kills most of the germs that cause the smells as well. The only requirement is that the container be closed most of the time to contain the ClO<sub>2</sub> gas.

The size of the container and the amount of air leakage are the determining factors in choosing the size of the deodorizer pouches. As an example, a 30 or 50 gallon garbage can with a tight fitting lid will require only a 5 gram extended release pouch to control the odor for up to a month. A garbage can with a loose fitting lid will need a 10 gram pouch. A dumpster with a hinged top and 1 or 2 side access doors will need a 25 gram, 50 or 100 gram extended release pouch. Additionally, the users of the dumpster need to be instructed to close the doors after use, if they wish to have a garbage disposal facility that does not smell bad.

### **Waste Containers (Trash cans):**

Tear open the foil packaging pouch prior to use and remove the 5 or 10 gram deodorizing pouch. Attach the pouch to the side of the lid of the container with the included self adhesive pouch (so that the pouch does not get thrown out with the garbage). Do not pierce the Tyvek pouch attaching it to or removing it from the outer container! Each pouch will produce ClO<sub>2</sub> for up to 1 month.

### **Refuse Containers (Dumpsters):**

Tear open the foil packaging pouch prior to use and remove the 25, 50 or 100 gram ClO<sub>2</sub> pouch. Using the included self adhesive pouch (so that the pouch does not get thrown out with the garbage) attach the pouch to the side of the dumpster in an area where it will not be torn off by the trash being dumped out of the container or dumped out of the pouch. Do not pierce the deodorizing pouch attaching it to or removing it from the container! Each 50-gram pouch will treat a closed 160 cubic foot container for up to 1 month. The effectiveness in large trash containers is completely dependant on keeping the containers doors closed.