

Chlorine Dioxide 25 gram

Activation Instructions

v2_Oct11,2023

Equipment:	
Scissors/Utility knife	Used to cut open safety seal on VPS package.
Bottle or small jug for water used to activate Fast Gas.	The bottle is used to fill the cups found inside the canisters and to activate VPS chlorine dioxide (ClO ₂) using 1ml of water per gram. (25g container = 25ml water).
Tape & polyethylene plastic (non-residue duct tape ideal)	To seal seams and hinges on man-doors, and for sealing with plastic of larger areas & vents to prevent gas from escaping to outside of building and/or areas that will not be treated.

Pre Treatment:	
Clean prior to treatment	Ensure all treatment areas and surfaces are clean and free of organic matter. Dirt and other organic buildups can keep ClO ₂ gas from effectively contacting the surface. Contact VPS with any questions about other materials or chemicals that will be in the treatment area, for which you have questions or concerns about possible interactivity between the chlorine dioxide and said materials.
Signage	Use appropriate DO NOT ENTER signage across entry ways to treatment area(s) to notify all persons that the area is being treated with ClO ₂ gas.
Exhaust planning to remove residual gas at completion of treatment	Plan how you will exhaust the residual gas upon cessation of chlorine dioxide treatment. For small areas (cars, RVs, boats, homes, etc.) this is nothing more than opening a door. For large areas (food processing plants), exhaust system (whether HVAC or fans) should be turned on from outside the treatment area, and exhausted to outside of building. Exhausting through the roof is recommended as any gas released will quickly and safely dissipate in the atmosphere.
Sealing confirmation	Inspect sealing of all doors, entry ways and vents to assure all areas are sufficiently sealed to prevent gas from escaping to the outside of treatment area and/or escaping beyond the areas that are being treated. Most man doors have appropriate weather seals that require no extra sealing. If you believe a man door will leak, then use non-residue duct tape or common painter's tape around the seams of doors and including the hinges of the doors. Vents and open entry ways should be sealed with 6 mil. polyethylene plastic, and securely sealed with tape on sides, tops, and bottoms. UV light will break down chlorine dioxide, therefore; cover windows and shut off lights to improve efficacy. Cars, Planes, homes generally require little if any sealing.

Treatment:	
Treatment capability	For odor control, use 25 grams per 2,500 cubic feet.
VPS Fast Gas Canister Placement	Position the container in the center of the room, as high up as possible, ensuring even dispersion. Canisters should be placed equidistantly from each other in the areas that are being treated. To avoid bleaching risk, do not place directly on carpet, leather, or similar surfaces.
Activation	IMPORTANT: Remove lid and place lid upside down on a hard surface. Remove disposable fill cup from canister and fill cup with water to specified level of 1ml per gram (25g container = 25ml water). Pour water into VPS canister over the chemical powder. Do not agitate or stir. Place face-up, and inside the upside-down lid. Repeat for additionally deployed canisters. Note: room temperature tap water is recommended.
Final sealing	Immediately, close all doors and provide final sealing upon exiting treatment area.

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Post Treatment:	
Personal Protection Equipment (PPE)	For treatments consisting of more than the equivalent of 600 grams, it is recommended to have a full-face respirator & filters rated for ClO ₂ , nitrile or latex gloves, safety glasses, and a personal ClO ₂ monitor. For smaller applications like cars, planes, etc, nitrile gloves and safety glasses are recommended in observance of safe chemical handling practices.
Exhaust residual ClO ₂ gas	For large treatment plans and after treatment time, turn on exhaust system from outside treatment area. Exhaust system (whether HVAC or fans) must be turned on from outside the treatment area, and exhausted to outside of building. Exhaust through the roof is ideal. If exhaust through doorway(s) leading to outside is required, set up a perimeter of approximately 50 feet to prevent accidental exposure to chlorine dioxide. The gas will quickly dissipate in the atmosphere. For smaller areas, car, planes, small rooms, etc, simply open the door and allow gas to naturally escape. In cars and planes this generally only takes a few minutes.
Removal of signage	Remove ONLY after the OSHA 8-hour safe gas level of 0.1 ppm or less has been reached.
Disposal of VPS after completion of treatment	Upon re-entry, dispose of any remaining liquid down any drain and discard the canister into a trash or recycling receptacle. Please consult your local recycling authority or visit their website for detailed information on recycling practices specific to your region.

Personal Protection Equipment (PPE):	
Rubber gloves (nitrile or latex)	As with any chemical mixture, do not touch VPS powder with bare hands. Rubber gloves are recommended.
Safety glasses	Always wear safety glasses when using or handling VPS.
Chlorine Dioxide (ClO ₂) Monitor	Large Treatment plans only: A personal chlorine dioxide monitor may be worn near the collar of the shirt for measuring residual gas levels. See the following link for the recommended equipment: https://sps.honeywell.com/us/en/products/safety/gas-and-flame-detection/portables/honeywell-bw-solo
Full-Face respirator & filters rated for ClO ₂	Large Treatment plans only: Full-Face respirator should be worn anytime you are deploying more than 600 grams of VPS. See the following links for the recommended equipment: Full face respirator: https://pksafety.com/moldex-9000-full-face-respirator-combination/
Personnel readiness & safety	Large treatment plans only – When deploying more than 1000 grams of VPS Fast Gas, two persons should work together for safety purposes.

 See VPS Material Safety Data Sheet at <https://ventanaplant.science/> for More Information.