

## IVR-SAN 15 WATER SYSTEM DISINFECTANT

### APPLICATION

**IVR-SAN 15** is the oxidizer portion of a highly-effective disinfectant that is intended to be generated on-site with one or two other chemicals (activators). Solutions produced from **IVR-SAN 15** are far more effective disinfectants in the presence of organic matter than are chlorine and hypochlorite solutions. While chlorine solutions add a permanent chlorine atom to organic molecules, yielding chlorinated by-products that are hazardous to health, **IVR-SAN 15** disinfecting solutions work by removing an electron, thus eliminating the generation of toxic chlorinated by-products. This lack of generating toxic chlorinated by-products makes **IVR-SAN 15** disinfectant solutions an environmentally friendly choice for your disinfection needs.

The efficacy of disinfecting solutions generated from **IVR-SAN 15** and an activator are not appreciably changed by varying pH, whereas the efficacy of chlorine and hypochlorite solutions diminish greatly with higher pH values.

### WATERBORNE PATHOGENS

Legionella bacteria and other pathogens may be present in water systems. Application of a microbicide does not guarantee the absence of such pathogens, nor is it possible or reasonable to eliminate all risk of infection. Users should develop a comprehensive water management plan in accordance with ANSI/ASHRAE Standard 188, OSHA guidelines (OSHA Technical Manual Section III: Chapter 7), and other guidelines applicable to the specific facility/system. CH<sub>2</sub>O, Inc. recommends that testing for legionella bacteria be incorporated in the facility's water management plan.

### DIRECTIONS FOR USE

**IVR-SAN 15** should be reacted in one of CH<sub>2</sub>O's **Generation Systems** using an activator(s) that has been selected considering the intended application. CH<sub>2</sub>O has a complete line of activators for use in food-processing, agricultural, and industrial applications.

The disinfecting solutions produced in CH<sub>2</sub>O's **Generation Systems** can be used for controlling microbial populations in poultry process water, food plant process water, industrial cooling water treatment, potable water treatment, bacterial slime control in paper mills, mollusk control in water systems, and wastewater treatment.

### SAFETY & HANDLING PROCEDURE

**IVR-SAN 15** contains a strong oxidizing agent that is both alkaline and corrosive. Mixing this product with acids, alcohol, or other chemicals may cause a reaction with the evolution of a hazardous gas mixture, which is toxic and may be explosive. **IVR-SAN 15** should ONLY be mixed with other chemicals using a closed reaction chamber.

This product is degraded by heat and exposure to UV light (sunlight). Product should be stored inside, out of sunlight exposure, unless the container is open, and the product is on-line and in use.

### FEEDING TECHNIQUE

Combine **IVR-SAN 15** with one of CH<sub>2</sub>O's activator products using a CH<sub>2</sub>O automated metering system. Although a 1:1 ratio between **IVR-SAN 15** and the activator is common, the ratio used will be dependent upon your specific conditions. Inject reacted products directly into the water-using/distribution system. Never mix this product with another unless using properly tested metering equipment.

### CONTROL

Daily testing is recommended to maintain proper control. Failure to monitor and maintain treatment levels can cause damage. In addition to monitoring and maintaining treatment levels, it is the customer's responsibility to ensure the product is fit for its intended application. Additional testing may be performed upon request.

Use only with CH<sub>2</sub>O operating equipment. A control test is necessary for individual applications to determine tolerance. Customers shall set treatment levels based on their control test results.

### PHYSICAL PROPERTIES

Appearance.....	Clear, Pale Green Liquid
Odor.....	Mild Ammonia-sulfide
Foam.....	None
Pounds per Gallon.....	9.1-9.6
pH of Use Solution.....	Variable

### Seller Warranty

CH<sub>2</sub>O brand test reagent refills are available through your sales representative at no charge. Customers are required to confirm product compatibility via a control test for their specific application. CH<sub>2</sub>O recommends that you perform regular/daily testing to control chemical levels and cycles of concentration within established limits. Additional tests may be performed at your request. Test reports reflect conditions at the point when the analysis was performed. Results will change over time and with varying operating conditions.

Seller warrants that this product conforms to its chemical description and is reasonably fit for the purpose referred to in the product data sheet. Buyer is responsible to ensure that products and product dosages are appropriate for Buyer's particular application. Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE. No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty. The exclusive remedy against seller shall be a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or tort. Jurisdiction for any issues arising from or relating to this product shall be in the courts of the State of Washington and the venue shall be Thurston County. Any controversy or claim arising out of or relating to this contract, or breach thereof, shall be settled by arbitration in accordance with the rules and procedures as stated in RCW 7.06 and shall be binding upon both parties without right to appeal, and judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

Applies to all products sold by CH<sub>2</sub>O, Inc., and is hereby communicated to all of its customers as a condition of sale. Use of CH<sub>2</sub>O products is subject to the Standard Terms and Conditions as listed on CH<sub>2</sub>O, Inc.'s website at: [www.ch2o.com](http://www.ch2o.com).