

AquaPure[™] HQ

Aquapure HQ is an excellent, all-purpose reducing agent for wastewater treatment. It may be used in the classic sense to reduce hexavalent chrome to trivalent. It may also be used to reduce excess oxidizers such as oxygen, peroxide, persulfate, chlorine or hypochlorite permanganate. As a liquid, it may be metered or pumped. Depending upon the application, the use of ORP to control additions may be desirable.

Features & Benefits

Ready to use liquid	Easy to meter
Easy to control using	Works to reduce hexavalent
ORP (oxidation reduction	chrome, oxygen. persulfate,
potential)	chlorine, or hypochlorite

Operating Conditions

For Chrome Reduction

- 1. Adjust pH of the solution to between 2.0 to 2.5 pH with Sulfuric Acid. If the pH is already in that range, make sure there is some sulfuric acid present in the system
 - 2. Using an ORP meter, slowly add Aquapure HQ to a steady reading of +250 mV

3. Maintain this reading for 15 minutes if possible, while maintaining the 2.0 to 2.5 pH range

- 4. Adjust the pH of the solution to 8.0 with dilute caustic, soda ash, or lime
- 5. Continue with treatment process as recommended by your Aquapure Specialist

For General Reduction

1. The reading of a solution should be in the positive mV range at 2.0 pH reading.

2. The addition of Aquapure HQ will cause the mV readings to drop as the pH is increased.

- 3. Very small adds are made until the readings level off. When this happens, allow the reaction to complete (10 mins)
 - 4. Make any final pH adjustments



5. Continue with treatment process as recommended by your Aquapure Specialist

Theoretical Potential Requirements

Chlorine removal (Cl₂) (gallons to treat) (ppm Cl₂) (3.19 x 10^{-6}) = gallons of Aquapure HQ

Oxygen removal (O₂) (gallons to treat) (ppm O₂) (1.29 x 10^{-5}) = gallons of Aquapure HQ

<u>Note</u>: Dissolved oxygen reduction works best between pH 7.0 - 9.0. The presence of Fe²⁺, Ni²⁺, and Co²⁺ aids reduction time.

Waste Disposal

Neutralize with dilute alkali to pH between 6.0 and 8.0. Allow all gassing to cease. Discharge to disposal area. Contact your Aquapure Specialist for disposal information.

Caution

Aquapure HQ is both a powerful reducer and a corrosive. Please handle accordingly. Care should be taken to avoid contact with skin, eyes or oral ingestion. Wear protective clothing, goggles, gloves. Keep from contact with oxidizers as toxic sulfur dioxide may be generated. In case of injury, contact a physician immediately.



Product Bulletin Product Name: Aquapure HQ Product Code: 2601011 Revision Date: February 2, 2024

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Our People. Your Problem Solvers.

For more information on this process, please call us at 203.756.5521 or email: <u>techservice@hubbardhall.com</u>

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