



**Aquapure™ HQ**

**Product Code: 2601011  
Revised Date: March 19, 2015**

**Aquapure™ HQ**

**DESCRIPTION**

**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 "kill" excess oxidizers such as oxygen, peroxide, persulfate, chlorine or hypochlorite. As a liquid, it may be metered or pumped. Depending upon the application, the use of orp to control additions may be desirable.

**FEATURES AND BENEFITS**

- All purpose liquid reducing agent
- Easy to meter in
- Works to reduce hexavalent chrome, oxygen. Persulfate, chlorine, or hypochlorite
- Easy to control using ORP ( oxidation reduction potential)

**TYPICAL APPLICATIONS**

- In chrome plating shops
- In any metal finishing shop where oxidizers must be treated in primary waste treatment systems prior to main treatment

**OPERATING CONDITIONS**

**For Chrome Reduction**

- a. Adjust pH of the solution to between 2.5 - 2.8 with sulfuric acid. If the pH is already in that range, make sure there is some sulfuric acid present in the system.



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- b. Using orp, slowly add **Aquapure™ HQ** to a steady reading of +280 mv.
- c. Maintain this reading for 15 minutes if possible.
- d. Adjust the pH of the solution to 8.0 with dilute caustic, soda ash or lime.
- e. Use Aquapure™ AN if an anionic flocculent is needed.

#### For General Reduction

- a. The reading of a solution should be in the positive mV range.
- b. The addition of **Aquapure™ HQ** will cause the mV readings to drop.
- c. Very small adds are made until the readings level off. When this happens, allow the reaction to complete (10 mins).
- d. Make any final pH adjustments
- e. Add Aquapure™ AN if a polymer is needed.

#### Theoretical Potential Requirements

##### **for chlorine (Cl<sub>2</sub>)**

(gallons to treat)(ppm Cl<sub>2</sub>)(3.19 x 10<sup>-6</sup>) = gallons of **Aquapure™ HQ**

##### **for oxygen removal (O<sub>2</sub>)**

(gallons to treat)(ppm O<sub>2</sub>)(1.29 x 10<sup>-5</sup>) = gallons of **Aquapure™ HQ**

**Note:** dissolved oxygen reduction works best between pH 7 and 9.  
the presence of Fe<sup>2+</sup>, Ni<sup>2+</sup>, and Co<sup>2+</sup> aids reduction time.

#### **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,



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goggles, gloves. Keep from contact with oxidizers as toxic sulfur dioxide may be generated. In case of injury contact a physician immediately.

### **WASTE DISPOSAL**

Neutralize with dilute alkali to pH between 6 and 8. Allow all gassing to cease. Discharge to disposal area. Contact local authorities for latest regulations in your area.

### **WARRANTY**

THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.