

CHLORINE REDUCTION TEST REPORT

Report #: 8-7-C1
Date: 02/12/2008
Standard Performed: NSF-42 Chlorine Reduction Test (adapted)
Method Performed: Free Chlorine EPA 330.5
ENVIROTEK LABORATORIES, INC.
By: Jaime A. Young
Customer: Auro LLC.

EXECUTIVE SUMMARY

Auro Ionic Mineral solution manufactured by Auro LLC. was tested by applying the protocol NSF Standard 42 for chlorine reduction. The solution prepared with 1 mL of the Auro Ionic Mineral solution dissolved in a 1000 mL volumetric flask with the challenge water (2.08 ppm of Free Chlorine) reduced the Free Chlorine in the challenge water by 100.0%.

INTRODUCTION

Auro Ionic Mineral solution manufactured by Auro LLC. was tested by applying the protocol NSF Standard 42 for chlorine reduction. The challenge water was prepared by adding a chlorine standard to DI water in a 1000 mL volumetric to obtain a final concentration of free chlorine of 2.0 ± 0.2 mg/L (ppm); the solution was analyzed as per EPA method 330.5. After analyzing the free chlorine and other parameters of this challenge water, one milliliter of the Auro Ionic Mineral concentrated solution was added to the volumetric flask containing the challenge water (2.08 ppm of Free Chlorine) mixed well and analyzed as per EPA method 330.5. The solution prepared at a concentration of 1:1000 in the challenge water, reduced the free chlorine in the challenge water by 100.0%. The level of chloride was tested in the challenge water before and after adding the Auro Ionic Mineral solution, the chloride level increased from 16 ppm to 550 ppm after adding the Mineral solution indicating that the free chlorine was converted to chlorides in the water.

MATERIALS

Auro Ionic Mineral concentrated Solution
Chlorine Standard Solution
Spectrophotometer (UV, Visible range) Reagents and chemicals necessary to perform EPA approved methods for drinking water analysis.

PROCEDURE

Prepare a water solution with free chlorine at a concentration of 2.0 ± 0.2 mg/L (ppm) by adding the appropriate amount of the chlorine standard to DI water. Analyze the final solution according to protocol NSF Standard 42. Add 1 mL of the Auro Ionic Mineral concentrated solution, mix well and analyze the final solution according to protocol NSF Standard 42.

RESULTS

Parameter	Challenge Water	Auro Mineral Solution	NSF Standard 42 range
pH	7.1	6.8	6.5-8.5
Total Dissolved Solids	110	118	80-120 ppm

Alkalinity	80	20	80-120 (ppm)
Calcium	20	800	32-48 (ppm)
Fluorides	2.0	1	2.0 (ppm)
Chlorides	60	550	Not Specified
Free Chlorine	2.08	Not Detected	2.0 ± 0.2

CONCLUSION

The Auro Mineral solution prepared at 1:1000 in the challenge water reduces the free chlorine in the challenge water by 100.0%, the minimum reduction amount required by the NSF Standard 42 is 50%, this product meets the requirements for chlorine reduction. The Auro Ionic Mineral solution also reduces the alkalinity and the pH of the water. The calcium and chloride levels increased by a significant amount after adding the Ionic Mineral solution to the challenge water. The reduction of the free chlorine level indicates that the free chlorine was reduced to chlorides. There is also a decreased in the amount of fluorides in the challenge water by 50.0%. The Auro Ionic Mineral solution is a suitable source of essential minerals.

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Notice:

The Auro lab reports are available to further substantiate the value and effectiveness of the Auro Ionic Minerals. These reports are very technical and are proprietary and to Auro LLC. are placed here for your information and demonstrate the credibility of the Auro Gold minerals and not to be distributed in any manor, written, electronically or otherwise.