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ADYA CLARITY FLUORIDE REDUCTION TEST REPORT

Report # 11-258-NaF
Customer Name: Adya, Inc.
Report Date: November 5, 2011

EXECUTIVE SUMMARY

A water solution prepared with a Sodium Fluoride concentration 8 mg/L of Fluoride was tested, Adya Clarity was added to the solution at a concentration of 1 mL, 2 mL, 3 mL, and 4 mL of Adya per liter of Sodium Fluoride solution and the solution was tested each time after about 15 minutes of adding the Adya solution. The concentration of Fluoride decreased each time until it was not detected by the EPA method 3.40.2.

INTRODUCTION

A water solution prepared with a Sodium Fluoride concentration of 8 mg/L of Fluoride as per NSF/ANSI Standard 53 was tested following the EPA method 340.2, Adya Clarity was added to the solution at a concentration of 1 mL, 2 mL, 3 mL, and 4 mLof Adya per liter of Sodium Fluoride solution and the solution was tested after about 15 minutes of adding the Adya solution. The concentration of Fluoride decreased each time until it was not detected by the EPA method 340.2.

REAGENTS AND LAB EQUIPMENT

Orion Dual Star ISE meter with Oakton Fluoride probe.
Oakton Sodium Fluoride standard 1,000 mg/L solution.
Hach Sodium Fluoride standard 100 mg/L.
Oakton Ion Strength Adjuster solution.
Adya Clarity solution.

PROCEDURE

A water solution was prepared using DI water and the Oakton Sodium Fluoride solution to obtain a concentration of 8 mg/L of Fluoride tested following the EPA method 340.2.
One mL of Adya Clarity was added to one liter of the Sodium Fluoride solution, mixed well and let it stand for about 15 minutes. The final solution was tested for Fluoride ions; the procedure was repeated after adding a total of two mL, three mL and four mL of Adya Clarity solution. the results are summarized in the table below.

RESULTS

The Fluoride concentrations are summarized in the following table:

Parameter Tested	Water Solution	Adya 1 mL/L	Adya 2 mL/L	Adya 3 mL/L	Adya 4 mL/L
Fluoride	7.94 mg/L	3.73 mg/L	2.98 mg/L	1.51 mg/L	<0.5 mg/L

CONCLUSION

The Adya Clarity traps about 100% of the Fluoride ions in solution at a concentration of 4 mL of Adya Clarity per 8 mg/L of Fluoride solution; at this point, the Fluoride ion was below the detection limit of the method 340.2.

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