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EPA ID # NJ01298 NJ DEP ID # 08012

PURINIZE MINERAL SOLUTION MERCURY REDUCTION TEST REPORT

Report # 14-130 (Purinize Mineral Solution)
Customer Name: Purinize.Com
Report Date: May 19, 2014

EXECUTIVE SUMMARY

A challenge water prepared with Mercury at a concentration of 6 µg/L. Purinize Mineral Solution was added to the solution at a concentration of 2 mL of Purinize per liter of challenge water. The solution was filtered through the Purinize Ceramic Filter System, then tested for Mercury after 24, and 48 hours of adding the Purinize solution. The concentration of Mercury decreased to non-detectable levels.

INTRODUCTION

A challenge water prepared with Mercury at a concentration of 6 µg/L. Purinize Mineral Solution was added to the solution at a concentration of 2 mL of Purinize per liter of challenge water. The solution was filtered through the Purinize Ceramic Filter System, then tested for Mercury after 24, and 48 hours of adding the Purinize solution. The concentration of Mercury decreased to non-detectable levels.

REAGENTS AND LAB EQUIPMENT

Perkin Elmer Spectrometer.
Mercury Standard Solution.
Purinize Mineral Solution.
Purinize Ceramic Filter System.

PROCEDURE

A challenge water solution was prepared with DI water and Mercury standard at a concentration of about 6 µg/L; then added Purinize Mineral Solution to the challenge water at a concentration of 2 mL of Purinize per liter of challenge water, filtered the solution through the Purinize Ceramic Filter System, then tested for Mercury after 24, and 48 hours of adding the Purinize solution, following the EPA method 245.1.

RESULTS

The Mercury concentrations for the challenge water and filtered Purinize Mineral Solution are summarized in the following table:

Parameter Tested	Water Solution	Purinize 2 mL/L after 24 hrs.	Purinize 2 mL/L after 48 hrs.
Mercury	6.04 µg/L	<0.5 µg/L	<0.5 µg/L

CONCLUSION

The concentration of Mercury decreased to non-detectable levels when using the Purinize mineral solution combined with the Purinize Ceramic Filter System.

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