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 EPA ID # NJ01298 NJ DEP ID # 03048 NY ELAP ID # 12044

ATC SUPER STERASYL FILTER PESTICIDE TEST REPORT

Report # 16-374-Pesticide
 Report Date: 11/15/2016
 Customer Name: Fairey Industrial Ceramics, LTD.

EXECUTIVE SUMMARY

Four hundred gallons of tap water was spiked with Pesticides Standard Solution to have a final concentration of 50 ± 5 $\mu\text{g/L}$; the spiked tap water was filtered through the filter element and tested; the Pesticides in the tap water were reduced by at least 95.0 % after 400 gallons.

INTRODUCTION

Four hundred gallons of tap water was spiked with Pesticides Standard Solution to have a final concentration of 50 ± 5 $\mu\text{g/L}$; the spiked tap water was filtered through the filter element and tested following the EPA Method 508.1; the Pesticides in the tap water were reduced by at least 95.0% after 400 gallons.

REAGENTS, MATERIALS, AND LAB EQUIPMENT

Hewlet Packard GC/ECD model 5890 plus.
 Restek Pesticide Standard Solution 2000 mg/L.
 ATC Super Sterasyl Filter.

PROCEDURE

Four hundred gallons of tap water was spiked with Pesticides Standard Solution in a Tank and mixed well; this solution was tested and adjusted to have a final concentration of 50 ± 5 $\mu\text{g/L}$ of Pesticides; the influent water properties are summarized in Table 1 below. The solution was filtered through the ATC Super Sterasyl Filter and tested every 100 gallons following the EPA Method 508.1 for Pesticides in drinking water. The results are summarized in Table 2 below.

RESULTS

Table 1
Influent Challenge Water Properties

Parameter	Influent Challenge Water	Target
pH	7.70	7.00 to 8.00
Temperature	20.5 °C	20 \pm 2.5°C
TDS	350 mg/L	200 to 500 mg/L
Turbidity	0.65 NTU	<1 Nephelometric Turbidity Units

Table 2
Filtered Water Pesticide Test Results

Drinking Water Contaminant Tested	Influent Water Results in $\mu\text{g/L}$	Filter Results 100 gallons	Filter Results 200 gallons	Filter Results 300 gallons	Filter Results 400 gallons	% Reduction at 400 gallons
4,4'-DDD	50.1	<0.1	<0.1	<0.1	<0.1	99.8+
4,4'-DDE	50.2	<0.1	<0.1	<0.1	<0.1	99.8+
4,4'-DDT	50.1	<0.1	<0.1	<0.1	<0.1	99.8+
Alachlor	40.2	<0.1	<0.1	<0.1	<0.1	99.8+
Aldrin	50.2	<0.1	<0.1	<0.1	<0.1	99.8+
Alpha-BHC	50.8	<0.1	<0.1	<0.1	<0.1	99.8+
Ametryn	50.0	<0.1	<0.1	<0.1	<0.1	99.8+
Atraton	50.2	<0.1	<0.1	<0.1	<0.1	99.8+
Atrazine	10.0	<0.1	<0.1	<0.1	<0.1	99.0+
Beta-BHC	50.9	<0.1	<0.1	<0.1	<0.1	99.8+
Bromacil	51.2	<0.1	<0.1	<0.1	<0.1	99.8+
Carbofuran	80.2	<0.1	<0.1	<0.1	<0.1	99.9+
Chlordane	40.2	<0.1	<0.1	<0.1	<0.1	99.8+
Chlorneb	51.0	<0.1	<0.1	<0.1	<0.1	99.8+
Chlorobenzilate	49.9	<0.1	<0.1	<0.1	<0.1	99.8+
Chlorothalonil	50.2	<0.1	<0.1	<0.1	<0.1	99.8+
Chlorprophane	50.2	<0.1	<0.1	<0.1	<0.1	99.8+
Chlorpyrifos	50.3	<0.1	<0.1	<0.1	<0.1	99.8+
Cyanizene	50.1	<0.1	<0.1	<0.1	<0.1	99.8+



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Drinking Water Contaminant Tested	Influent Water Results in µg/L	Filter Results 100 gallons	Filter Results 200 gallons	Filter Results 300 gallons	Filter Results 400 gallons	% Reduction at 400 gallons
Delta-BHC	50.7	<0.1	<0.1	<0.1	<0.1	99.8+
Dichlorvos	50.2	<0.1	<0.1	<0.1	<0.1	99.8+
Dieldrin	50.2	<0.1	<0.1	<0.1	<0.1	99.8+
Diphenamid	50.2	<0.1	<0.1	<0.1	<0.1	99.8+
Disulfoton	50.2	<0.1	<0.1	<0.1	<0.1	99.8+
Endosulfan Sulfate	50.0	<0.1	<0.1	<0.1	<0.1	99.8+
Endrin	6.0	<0.1	<0.1	<0.1	<0.1	98.3+
Endrin Aldehyde	50.5	<0.1	<0.1	<0.1	<0.1	99.8+
Endrin Ketone	50.0	<0.1	<0.1	<0.1	<0.1	99.8+
Endosulfan I	49.8	<0.1	<0.1	<0.1	<0.1	99.8+
Endosulfan II	50.3	<0.1	<0.1	<0.1	<0.1	99.8+
Ethoprop	50.4	<0.1	<0.1	<0.1	<0.1	99.8+
Fenamiphos	50.2	<0.1	<0.1	<0.1	<0.1	99.8+
Fenarimol	50.2	<0.1	<0.1	<0.1	<0.1	99.8+
Fluoridone	50.4	<0.1	<0.1	<0.1	<0.1	99.8+
Gamma-BHC (Lindane)	2.0	<0.1	<0.1	<0.1	<0.1	95.0+
Glyphosate	800	<0.1	<0.1	<0.1	<0.1	99.9+
Heptachlor	80.0	<0.1	<0.1	<0.1	<0.1	99.9+
Heptachlor Epoxide	4.0	<0.1	<0.1	<0.1	<0.1	97.5+
Methoxychlor	120	<0.1	<0.1	<0.1	<0.1	99.9+
Molinate	50.4	<0.1	<0.1	<0.1	<0.1	99.8+
PCB's	10.1	<0.1	<0.1	<0.1	<0.1	99.0+
Prometron	50.0	<0.1	<0.1	<0.1	<0.1	99.8+
Simazine	12.0	<0.1	<0.1	<0.1	<0.1	99.2+
Toxaphene	15.1	<0.1	<0.1	<0.1	<0.1	99.3+

CONCLUSION:

The ATC Super Sterasyl Filter reduces the Pesticide concentration by at least 95.0% for up to 400 gallons, tested following the NSF Standard 53.

CERTIFICATION OF RESULTS:

I certify in writing that all analyses, and reporting performed herein, comply with all requirements set forth in N.J.A.C. 7:9E and N.J.A.C. 7:18, and hereby certify that this laboratory is in compliance with all laboratory certification and quality control procedures and requirements as set forth in N.J.A.C. 7:18; the NYCRR Subpart 55-2 and the National Environmental Laboratory Accreditation Conference (NELAC) Institute Standards.

Disclaimer: The test results are only related to the filter sample tested.

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