**PathShield™ Antimicrobial Filter Media**

For reduction and control of coliform bacteria in storm water, industrial waste water, recirculating cooling towers, heat transfer systems (evaporative condensers, hydrostatic sterilizers and retorts, brewery and other pasteurizers, and warmers), industrial fresh water systems, service water and auxiliary systems, and municipal waste water treatment only.

**KEEP OUT OF REACH OF CHILDREN**

<table>
<thead>
<tr>
<th>CAUTION</th>
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<tr>
<td><strong>FIRST AID</strong></td>
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<tr>
<td>If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.</td>
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<tr>
<td>If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, and then continue rinsing. Call poison control center or doctor for further treatment advice.</td>
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<tr>
<td>If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.</td>
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<tr>
<td>Have the product container or label with you when calling a poison control center or doctor or going for treatment.</td>
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**HEALTH CAUTION**

**LUNG INJURY AND CANCER HAZARD**

CONTAINS FREE CRYSTALLINE SILICA

CAS No. 14808-60-7

**DO NOT BREATHE DUST MAY CAUSE DELAYED LUNG INJURY**

Prolonged inhalation can cause delayed lung injury including SILICOSIS, a progressive, disabling, and sometimes fatal lung disease. IARC has determined that crystalline silica inhaled from occupational sources can cause cancer in humans. Risk of injury is dependent on the duration and level of exposure.

Avoid creating dust when handling, using, or storing. Use only with adequate ventilation to keep exposure below recommended exposure limits. Do not use as a dry abrasive blasting agent. Follow OSHA or other relevant safety and health standards for the form of crystalline silica called quartz. Current material safety data sheet containing safety information is available and should be consulted before opening. Since empty containers retain product residue, follow label warnings even after this container is empty.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. PathShield™ Antimicrobial Filter Media may be used as a direct substitute media in most sand filter systems for water treatment. It should be kept clean and dry prior to installation. The colloform bactericidal activity of PathShield™ is dependent upon the flow of contaminated water through the media. That is, PathShield™ does not release, discharge, or leach an antimicrobial agent that kills coliform bacteria but rather requires physical movement of these organisms over the hostile surface of granules for antimicrobial activity.

To obtain antimicrobial activity, PathShield™ must be used within an enclosed device, container, containment, apparatus, vessel, or system that directs all water to be treated through the media without channeling or opportunity for bypass.

PathShield™ media is intended for use in the following applications:

1. Sand filter structures, cartridges, or devices operating in the following water treatment systems
2. Industrial waste water filtration systems: including cartridge, vessels for batch or continuous operation, and filtration panels for treatment of industrial discharges, and process water excluding potable water.
3. Storm water filtration systems including catch basin inserts, filtration beds, filtration units, cartridges and filtration layers.
4. Municipal waste water filtration: systems for treatment of secondary or tertiary sewage treated effluent excluding potable water.

PathShield™ must not be used as standalone treatment for raw sewage.

PathShield™ media should be installed in accordance with the treatment device manufacturer’s filter media installation instructions. Since the physical specifications of PathShield™ has the same filter media physical characteristics and specifications as standard untreated sand, modifications or alterations to the water filter system are not required.

For installations, the filter chamber should have a water outlet through which PathShield™ is installed in order to both minimize dust and facilitate filter media distribution. A 50 lb/sqft bag of PathShield™ is approximately 0.5 ft³. For replacement or retrofit installations, PathShield™ must be installed after the old filter media has been completely removed. Prior to media installation, internal plumbing/mechanisms should be inspected and cleaned. If the old/removed filter media was fouled or contaminated, the interior of the vessel should be disinfected using an appropriate FIFRA registered product according to its use instructions.

Sand filters with PathShield™ installed must always be operated and maintained according to device manufacturer’s instructions. Backwash and cleaning cycles must be conducted per manufacturer’s recommendations. PathShield™ is rated for the following minimum and maximum flow rates in order to maintain antimicrobial activity:

- Filtering: 1 gpm/ft² up to 20 gpm/ft² max
- Backwash: up to 15 gpm/ft² max

**CONDITIONS, DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY**

Read the following. By using this product, buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** Read the entire Directions for Use. The directions for use of PathShield™ must be followed carefully. Environmental factors such as oils and greases in the water, excessive corrosion in equipment and piping, and improper operation and maintenance of the sand filter device may adversely affect the performance and/or longevity of PathShield™. Since these factors are beyond the control of A S Filtration™, LLC, the buyer assumes all risks related to these factors.

**DISCLAIMER OF WARRANTIES:** A S Filtration™, LLC makes no other warranties, express or implied, of the fitness for a particular purpose or otherwise, beyond the statements made on this label. A S Filtration™, LLC makes no claims as to the effectiveness of PathShield™ against damage by microorganisms to any upstream or downstream equipment, piping or systems.

No agent of A S Filtration™, LLC is authorized to make or modify any warranties beyond those contained herein.

**LIMITATIONS OF LIABILITY:** The exclusive remedy of the buyer for any losses, injuries, or damages resulting from the use or handling of PathShield™ shall not exceed the purchase price paid or, at A S Filtration™ discretion, the replacement of the product to the extent consistent with applicable law.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal. Pesticide Storage: Store in original, tightly closed secure container in a protected area inaccessible to children.

Pesticide Disposal: To avoid waste, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry). Note that, as with other sand filter media, if the water treatment device containing PathShield™ has been used to filter out non-bacterial contaminants of concern, it is advisable to perform a Toxic Characteristic Leaching Procedure (TCLP) test on the spent material to determine the best disposal methods according to local, state and federal guidelines.

**Container Handling:**

- Reutilizable container (5 gallon bucket): Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal completely empty container into application equipment. Then thoroughly rinse container with detergent and fresh water. To clean the container before final disposal, empty the remaining contents from this container into an application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with a pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

- Non-reutilizable container (50 pound bags and super sacks): Do not reuse or repack this container. Completely empty container into application equipment. Then offer for recycling if available or discard in trash or puncture and dispose of in a sanitary landfill.

**PRECAUTIONARY STATEMENTS**

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION - Harmful if inhaled. Avoid breathing dust. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear goggles or face shield and a NIOSH approved dust mask or respirator if applications result in dusting. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing prior to reuse.

**PERFORMANCE**

- PathShield™ reduces both particulate and coliform bacterial contamination.
- The antimicrobial agent on PathShield™ is not consumed and is not prone to release or leaching.
- Effective at high flow rates up to 20 gpm/ft².
- Drop in replacement for standard sand filter media.
- Antimicrobial activity is dependent upon water flow rate through the PathShield™ media.
- Direct contact reduces coliform bacteria in water that passes through the PathShield™ media.
- More than physical removal of bacteria; PathShield™ kills coliform bacteria that pass through the media.

A S Filtration™, LLC
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Chattanooga, TN 37343
(888) 344-9044

EPA Reg. No. 88965-1
EPA Est. No. 88965-TN-001

Net Contents: ____________________ Lot Number: ____________________

Active Ingredient: 3-(hydroxysilyl) propdimethylectadecyl ammonium chloride 0.05% Other Ingredients: 99.95%

Total Ingredients: 100%

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