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January 27, 2006

Jim Jones, Director  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Ave. NW  
Washington, D.C. 20460

Dear Mr. Jones:

**Request to Require Registration of Samsung Silver Wash clothing washing machine, and Silver Ion Pesticide products**

The purpose of this letter is to request that the U.S. Environmental Protection Agency (EPA) require the registration of Samsung's "Silver Wash" washing machine, and that the EPA require the registration of any other products that utilize silver ions as disinfectants. As background, Tri-TAC is a technical advisory group for Publicly Owned Treatment Works (POTWs) in California. Tri-TAC is jointly sponsored by the California Association of Sanitation Agencies, the California Water Environment Association, and the League of California Cities. The constituency base for Tri-TAC collects, treats, and reclaims more than two billion gallons of wastewater each day and serves most of the sewered population of California.

Tri-TAC's member agencies are very concerned about the water quality impacts of residential pesticide uses. We have noted the increased marketing of household products that contain pesticides, such as mattress liners and clothing impregnated with permethrin. Products such as these will result in pesticide releases when clothing and mattress liners are laundered. These concerns have been expressed in previous letters from Tri-TAC. The Samsung "Silver Wash" washing machine is now being marketed under manufacturer claims that it achieves 99.99% sterilization of bacteria, and that it provides a silver ion residual on clothing that is effective for up to 30 days. Please refer to Samsung's website at:

<http://ww2.samsung.co.za/silvernano/silvernano/washingmachine.html>

The Samsung Silver Wash washing machine is specifically designed to release silver ions during each washing cycle. These silver ions will then be discharged into sanitary sewer systems.

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January 27, 2006  
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Silver is highly toxic to aquatic life at low concentrations, and also bioaccumulates in some aquatic organisms, such as clams. Due to concerns about bioaccumulation and the placing of strict silver effluent limits in discharge permits, POTWs have implemented pollution prevention programs to identify and reduce silver discharges to sanitary sewer systems. These programs have been very successful in reducing POTW influent and effluent silver concentrations. However, widespread use of household products that release silver ions into sanitary sewer systems could greatly increase silver concentrations in POTW influents and effluents, leading to adverse effects on California waterways. POTWs are subject to Mandatory Minimum Penalties for the violations of their discharge permits that could result.

It is distressing to POTWs to observe the increasing prevalence of household products that use pesticides for general antimicrobial purposes. POTWs are proud of their history of taking effective actions that reduce discharges of toxic pollutants to the environment. Silver is a toxic and bioaccumulative element that cannot degrade in the environment, and is registered as a pesticide in numerous products. To allow the unrestricted usage of a product that intentionally releases silver into the environment would be an irresponsible neglect of the principles of environmental sustainability that should strongly influence such decisions.

In summary, Tri-TAC recommends that EPA require the registration of products that use silver ions as disinfectants, including the Samsung "Silver Wash" washing machine. We also ask that, during the registration process, EPA obtain data on the silver ion concentrations and wash cycle volumes used by the Samsung "Silver Wash" washing machine. This data should be used to impose necessary restrictions to ensure that water quality standards are not exceeded, and that the existing bioaccumulation of silver in aquatic environments is not exacerbated. Samsung's efficacy claims for the "Silver Wash" washing machine should also be carefully evaluated. In addition, ongoing monitoring and reporting of unit sales and silver releases should be required to determine whether registration should be continued or canceled.

Thank you for your consideration of this matter. If you have any questions or require additional information, please contact Phil Bobel at 650.329.2285, or [phil.bobel@cityofpaloalto.org](mailto:phil.bobel@cityofpaloalto.org).

Yours truly,



Chuck Weir  
Chair, Tri-TAC

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