



Water Talk

Volume 9, Issue 7

July 2009

Registration of Antimicrobials for Water Treatment

Biocides, microbiocides, fungicides and algaecides are regulated as Pesticides by the US Environmental Protection Agency (US EPA). They are regulated under the statutory authority of the:

- Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as Amended in 1996
- 40 CFR Parts 152, 156 and 158 (Code of Federal Regulations)
- Office of Pesticide Prevention and Toxic Substances (OPPTS) Harmonized Test Guidelines.

The registration requirements for antimicrobial pesticides differ somewhat from the other pesticides in that it requires special tests to ensure efficacy of public health pesticides when the pests are invisible. In addition, human and ecological risks for exposure to antimicrobial pesticides are also required. As a consequence, the US EPA has set up special antimicrobial test protocols.

The costs involved in satisfying the new product requirements of the US EPA are high. Fortunately for the water treatment service company, the basic manufacturers of the antimicrobials have already spent the money to get their product registered. Companies making microbiocides for water treatment include Albemarle, BWA, Dow, Occidental, Rhodia, Rohm & Haas (now part of Dow) etc.; they have a primary registration on the products. Many of these companies allow the sub-registration of their products to regional water treatment companies.

To obtain your own registration for products, the first step in the process is to obtain a US EPA establishment number. This number identifies you and will appear on all products registered by you. Once that is obtained, the process begins and the company with the primary registration will make sure your proposed label meets the US EPA requirements. Chem Inc. specializes in walking you through the process and coordinating the development of a label with the Primary Registrant. Chem Inc. also has several products with a Primary registration available for sub-registration. For

information on obtaining an establishment number visit http://www.epa.gov/opp00001/registrationkit/company-num_addr-chg.pdf

The label has the approved uses of the product with the dosage range. The efficacy of the product at these dosage ranges in each application has been previously determined to meet the US EPA requirements.

Since there are hundreds of names for similar water systems a generalized application system is used to cover a wide variety of applications. Some of the common uses seen on labels of products for water treatment applications are:

- **Industrial Recirculating Water Systems**

This could include a wide variety of systems including cooling towers, evaporative condenser systems, evaporative coolers, closed loop systems, thermal storage systems and many others.

- **Industrial Recirculating Cooling Tower Systems**

This is more specific and would include standard cooling towers or other evaporative systems like evaporative condenser systems.

- **Air Washer Systems**

There are many types of systems with differing names that are often used under this category of registration because they have very similar

operational characteristics. These would include air coolers, swamp coolers, desert coolers and evaporative coolers. In all cases water flows through a fill causing some water evaporation which cools the air, controls humidity or washes impurities out of the air.

- **Paper Mill Application**

Most often this does not specify the names of all the systems applicable to this application. They may specify paper machines, but not the point of application such as the broke chest or head box. In addition there are many other applications in paper mills often not specified.

- **Membrane Systems**

This would include Reverse Osmosis, Ultrafiltration, and Nanofiltration but may not be specified on the label.

Once the US EPA has approved a label, it has to be approved by the regulatory agencies in the individual states where it is going to be sold. This is usually the State Pesticide Regulatory Agency. Most states accept the US EPA label as is and an annual fee is involved to keep the registration in the state. The annual fee is usually \$50 - \$200 depending on the state, but California charges \$750/product annually.

There are some states that require additional data to support the application. California for example requires specific laboratory and field efficacy on all applications listed on the label. The laboratory efficacy data has to be conducted on specific organisms specified by the state. There are many products that have fewer claims on the label in California for that reason.

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For information visit

<http://www.epa.gov/opp00001/registrationkit/>