EPA Unconditionally Registers New Nanosilver Product for Antimicrobial Use on Textiles

The U.S. Environmental Protection Agency (EPA) announced on July 2, 2020, that it has registered NSPW Nanosilver (a new nanosilver formulation) to suppress odor-causing bacteria and algae, fungus, mold, and mildew that can cause deterioration or staining in textiles. Textiles that may be treated with NSPW Nanosilver include fabrics, sportswear, footwear, linens, and awnings. NSPW Nanosilver is the active ingredient in the pesticide product POLYGUARD-NSPW MASTER BATCH (Polyguard). The NSPW Nanosilver in Polyguard will be embedded within beads or pellets of a polymeric material in a “master batch,” and these beads of pellets will then be incorporated into treated textiles through a closed-loop manufacturing process. EPA states that once the beads or pellets containing NSPW Nanosilver are introduced into this manufacturing process, no beads or pellets can escape into the
environment. EPA also states that the available data indicate that the leach rate of nanosilver from NSPW Nanosilver-treated textiles is below the limit of detection.

The same type of nanosilver was the active ingredient in another product that EPA previously conditionally registered under FIFRA Section 3(c)(7)(C) in 2015. The U.S. Court of Appeals for the Ninth Circuit issued a decision vacating that conditional registration because the court concluded that the mandatory public interest finding by EPA was not adequately supported by the administrative record. According to EPA, the new registration for NSPW Nanosilver involves a modified use pattern that will limit exposures compared to the product that received the previously vacated conditional registration. Based on additional data that the applicant has submitted to support the use pattern as modified, EPA has prepared an updated risk assessment for NSPW Nanosilver and has determined based on that risk assessment that the product as modified meets the standard for an unconditional registration under FIFRA Section 3(c)(5). Materials supporting this action will be posted in Docket ID EPA-HQ-OPP-2020-0043.

Commentary

Registering any new metallic silver product that satisfies the EPA criteria for classification as nanosilver for use as an antimicrobial pesticide presents special challenges, because EPA has adopted a policy that it will construe each new nanosilver product as a new pesticidal active ingredient. The predecessor to NSPW Nanosilver (Nanosilva) was granted a conditional registration, a procedure that EPA uses when there are data gaps that must be filled before EPA is ready to make the determinations that would support issuance of an unconditional registration. EPA may only issue a conditional registration for a product containing a new pesticidal active ingredient when EPA makes a determination that “use of the pesticide is in the public interest,” and the Ninth Circuit Court determined that EPA did not compile an administrative record adequate to support that finding.

Colloidal metallic silver products that meet the definition of nanosilver were first synthesized in the late 19th century. Some industry stakeholders question whether the differences between different pesticide products that satisfy the EPA definition of nanosilver are sufficiently great to treat each new product as a new active ingredient, but it is also clear that the size and shape of the particles in these products do vary. In this instance, EPA has determined that the supporting data for the application allow EPA to issue an unconditional registration. Accordingly, the legal issue on which the Ninth Circuit based its prior decision to vacate the conditional registration for Nanosilva is not pertinent to the current registration decision. Given the challenge to the prior registration decision, it will be important to monitor any opposition to the newly issued registration.

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