EFFICACY AND SAFETY OF AQUI-S™ AS AN ANESTHETIC[AFS]

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Anesthetics are widely used in the culture of captive populations of fish and management of wild fish populations. Most aquatic biologists have used the fish anesthetics

FINQUEL™ or Tricaine-S™ (i.e., MS-222), which are approved by the U.S. Food and Drug Administration (FDA). Both products work well; however, the FDA-imposed 21-d post-exposure withdrawal period limits their use. Consequently, there is a niche for a fish anesthetic that can be used with no post-exposure withdrawal period. AQUI-S™ is an anesthetic that may fill this niche, and thus the USDI Fish and Wildlife Service's (FWS) Aquatic Animal Drug Approval Partnership (AADAP) program is involved in efforts to gain FDA approval of AQUI-S™ for use on all fish. At concentrations of 40 - 60 mg/L, AQUI-S™ rapidly anesthetizes salmonids to the handle-able stage; however, at these same concentrations, cool- and warm-water fishes are anesthetized relatively slowly. Thus, testing cool- and warm-water fishes at AQUI-S™ concentrations > 60 mg/L will be required. The FWS AADAP program has also initiated studies to determine (1) whether the highest proposed AQUI-S™ efficacious exposure concentrations provide an adequate margin of safety to the fish being treated, (2) product stability over the course of 1 d, and (3) reproducibility of time required to anesthetize fish to the handle-able stage. An overview of efficacy data, as well as preliminary results from other recently initiated studies, will be presented.