

Pesticide: Zinc and Zinc Salts; EPA-HQ-OPP-2009-0011
Use: Swimming pool algicide.
Why we care: Highly toxic to aquatic invertebrates. CWA Priority Pollutant.
Actions taken: BACWA has been tracking EPA actions on this pesticide since 2009.
Status: EPA released the Draft Risk Assessment in December 2018.



Next steps: EPA will analyze comments and issue a Proposed Interim Decision. No ESA consultation is currently planned.
Recommendation: Submit comments noting omission of POTW/storm drain discharges and requesting that EPA require the swimming pool discharge label language that EPA has been requiring on other swimming pool products.

From EPA’s Draft Risk Assessment:	Response from a POTW Perspective:
<p>EPA did not quantitatively assess discharges. It made unsupported qualitative claims that use in swimming pools, spas, and fountains will not cause any adverse effects: “The algicide use in swimming pools, hot-tubs and spas will have little exposure to nontarget organisms because the biocide treated water would be contained in the pool, hot-tub or spa and not exposed to nontarget organisms. The only potential exposure scenario would occur when the pool or spa is drained for cleaning and the treated water released. The amount of zinc added to the environment from this scenario would be expected to be low and not add significantly to the natural levels of zinc.”(p.4)</p> <p>“The Agency has no expectation that the antimicrobial uses of zinc salts will cause any direct or indirect adverse effects to endangered or threatened species. EPA has made a “no effects” determination for zinc salts under the Endangered Species Act (ESA) for all listed species and designated critical habitat for that species.” (p.4)</p>	<p>If EPA had conducted an assessment of the effects of zinc released to the from pools, spas, and fountains, it would have predicted exceedance of the zinc acute water quality criteria in creeks and could have examined potential impacts on treated wastewater effluent. (Since pool algacides have relatively low use, such impacts are unlikely.)</p> <p>Because EPA identified no significant risk, it makes it more difficult for EPA to require that product labels include the requirement to contact local agencies before discharging treated water from pools, spas, hot tubs, and fountains.</p>
<p>EPA did not use the zinc water quality criteria to evaluate water quality risks. Despite knowing that zinc salts degrade to zinc ions, EPA based its risk assessment on registrant-submitted toxicity data for salts: “... toxicity values for zinc found in the literature demonstrated higher toxicity levels than those found in the submitted studies. ...Since the Agency has submitted studies testing the actual pesticide active ingredients, which are more complete than the open literature citations, the data from these submitted studies will be used as the ecotoxicity endpoints.” (p. 15)</p>	<p>The most sensitive aquatic toxicity endpoint that they used (170 ug/L acute; 90 ug/L chronic – Table 2, p. 15) is slightly higher than EPA’s National Recommended saltwater aquatic life water quality criteria 90 ug/L acute; 81 ug/L chronic).</p>