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Attention: Editor
October 13, 2021
PRODUCT RELEASE



Cortec® Presents a Biobased Answer to Aluminum Irrigation Pipe Corrosion!

With more than 50 million acres (20,234,282 hectares) of irrigated farmland in the U.S. alone, irrigation plays a major role in the world's food supply. However, irrigation is costly and creates a naturally corrosive environment inside metal irrigation pipes and center pivot systems. The large percentage of pipes made of aluminum are at even greater risk in areas where groundwater carries a high level of chlorides and sulfates. To meet this



substantial need, Cortec® Corporation has recently developed EcoLine® AL-Corr™, a biobased corrosion inhibitor solution for the protection of aluminum (AL 3003 and AL 1100) irrigation pipes.

Benefits of Corrosion Protection for Irrigation Pipes

EcoLine® AL-Corr™ is designed to protect irrigation pipe internals from corrosion during active and intermittent use. Protection is important for several reasons.

- 1) **It can help the irrigation equipment last longer.** This is extremely important since the cost of installing an entire 160-acre (65-hectare) pivot irrigation system can be tens of thousands of dollars. At this price, it is important to make the equipment last as long as possible. Corrosion protection is one small price to pay to do so.



- 2) **It can result in fewer repairs.** The more corrosion occurs, the more leaks are likely, and the more downtime and repair efforts are needed. Having fewer leaks caused by corrosion translates into having fewer repair costs and delays.
- 3) **It facilitates more efficient watering.** Corrosion can cause clogging as well as leaks, causing the pipe to narrow and the water pressure and output to be less than optimal. Corrosion protection reduces the chance of this type of clogging.

EcoLine® AL-Corr™ Performance

So, how much protection does EcoLine® AL-Corr™ offer? Based on results of ASTM G31 immersion testing, the product is able to reduce corrosion rates by more than 90% in immersion conditions. Testing on two aluminum alloys over the course of five weeks at 104 °F (40 °C) showed the following results: 91.18% protection for AL 3003 metal and 99.03% protection for AL 1100 metal.

ASTM G 31 Immersion (104 °F [40 °C], 5 Weeks)			
Dosage	Corrosion Rate (MPY)	% Protection	Alloy
0 ppm	6.67	NA	AL 3003
250 ppm	0.59	91.18%	AL 3003
0 ppm	6.47	NA	AL 1100
250 ppm	0.06	99.03%	AL1100

Keeping the Environment in Mind

When formulating corrosion inhibitors for irrigation applications, it is vitally important to carefully select ingredients with environmental impact and safety in mind. Cortec® R&D addressed this issue by formulating EcoLine® AL-Corr™ with biodegradable materials approved for use in personal care products and food preservation. Furthermore, Cortec® also selected materials with a high percentage of renewable content, enabling EcoLine® AL-Corr™ to become a USDA Certified Biobased Product that contains 81% USDA certified biobased content. In this way, Cortec® has taken a double-sided approach to sustainability in the development of a corrosion inhibitor to help water irrigation equipment last longer.



Contact Cortec® today to learn more about this exciting new corrosion inhibitor designed to meet a vast need in the agricultural market!

<https://www.cortecvci.com/contact-us/>

Learn more about EcoLine® AL-Corr™ here:

<https://www.cortecvci.com/products/biocortec-sustainable-environmentally-friendly-resources/ecoline-al-corr/>



Keywords: center pivot irrigation, center pivot, pivot irrigation, irrigation, corrosion, irrigation corrosion, aluminum irrigation pipes, Cortec, EcoLine, USDA Certified Biobased Product, biobased, renewable content, agricultural corrosion, aquifers, groundwater, high chloride groundwater, sulfate groundwater

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