

Advanced Lead Corrosion Control and Risk Management



Communities across the world are plagued by lead contamination and corrosion concerns, which often come to light during testing of children's blood and after the event has occurred. However, per the [World Health Organization](#), "There is no level of exposure to lead that is known to be without harmful effects."

Current lead corrosion management solutions are not effective. They are uninformed, employ a central dosing scheme that is not adequate or responsive to localized risk of lead contamination and rely on orthophosphates that pose a huge environmental impact. Furthermore, there is lack of actionable data from existing monitoring methods because of their inadequate, infrequent or even inaccurate sampling and analysis.

[Aqua Metrology Systems](#) (AMS) has developed advanced solutions for lead corrosion risk management and control. AMS' online lead corrosion monitoring technologies are backed by actionable, high-frequency data, providing a comprehensive risk map that informs public health authorities, water treatment plant operators and consumers.

AMS' intelligent in-situ corrosion inhibitor generation and delivery technology offers a localized treatment solution that displaces orthophosphates and provides a responsive, point-of-care, effective approach to manage the multi-variant challenge of lead corrosion risk.

AMS Advanced Lead Corrosion Management Solutions

Lead Pipe Loops Monitoring

MetalGuard™ LeadAlert!™ Corrosion Risk Monitor

Real-time lead corrosion risk monitoring with predictive analytics

- Delivers timely, actionable data 24/7 to identify changes in corrosion risk potential (Limit of detection 1mg/L)
- Helps to inform risk mitigation and remedial actions (process changes, timely alerts to minimize use of tap water, increased domestic / tap flushing)



Local Corrosion Risk Control Monitoring

SafeGuard™ Lead Analyzer Corrosion Risk Monitor

Real-time, express lead corrosion screening and monitoring of “at risk” location (homes, schools, etc.)

- Delivers in 30 minutes total lead analysis when increased lead corrosion is predicted by MetalGuard™ LeadAlert!™ before consumers are exposed
- Auto-sampler provides high volume, rapid low-cost testing of manual samples, 24-hour turnaround
- Provides prompt “all clear” notification after high-risk events

Corrosion Control

SafeGuard™ H2O

In-situ, Electrochemical Corrosion Control

- Can be scaled to treat streams of any size and operates on demand
- Located at point-of-need NOT at remote water treatment plant
- Replaces bulk dosing of orthophosphates, produces stannous reagent on demand in-situ
- Reactive stannous inhibits biological growth while insoluble tin oxide provides inert film onto available pipe surface area
- Can be integrated with high-frequency monitoring at high-risk points (point-of-care, point-of-entry, point-of-use)



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