

ELECTROCOAGULATION INDUSTRIAL WASTEWATER TREATMENT

The Electrocoagulation (EC) Solution is a patented industrial wastewater treatment that is offered by Light Environmental.

EC utilizes an electro-motive force to sacrifice ions (Fe/Al) into solution while simultaneously releasing oxygen and hydrogen gas via electrolysis. Dissolved contaminants react with the sacrificial ions and gases such that they may precipitate and/or co-precipitate from solution and subsequently be removed by flotation or other methods. Colloidal particulates and emulsified oils may also be destabilized allowing them to coalesce and be removed.



Our patented process keeps O₂ and H₂ gases in solution where they are available for redox reactions. Pressure is released upon entry to the DAF clarifier feedwell where evolved gases are best utilized for flotation mechanics.

Our patented plate and frame reactor design incorporates a hydraulic mechanism to maintain closure allowing higher pressures in the reactor, ease of maintenance and minimum downtime. The reactor is constructed of heavy duty tubular steel providing industrial strength, durability and years of service. A heavy duty copper buss bar with quick disconnect features provides even distribution of power to the electrodes and the capability of alternate power configurations for use in multiple applications.

Unique High Pressure Process

- Maintains evolved gases in solution where they are available for reaction
- Pressure is released upon entry to the flotation clarifier for efficient separation
- Higher attainable flow rates
- Allows for processing of high viscosity fluids and sludge
- Containment of all fluids and gases eliminates possibility of fugitive emissions

Advantages to our Electrocoagulation Solution

- Elimination of reagents and associated equipment common to chemical systems
- Treatment occurs over a broad pH range
- Metal concentrations in the effluent are lower than those attainable by typical chemical systems
- Resulting industrial sludge is easily dewatered and will pass EPA TCLP for RCRA metals
- Process accepts a variety of wastes eliminating the need to segregate wastes by type
- Designs are available for pathogen reduction and disinfection applications

Learn More

To learn more about our Electrocoagulation Solution or any of our other wastewater solutions, please visit our web site at www.lightenvironmental.com or call our Corporate Sales Office at: 1-816-537-9190.

We look forward to providing your next wastewater solution.

LIGHT ENVIRONMENTAL, INC.

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