

Electro-Coagulation

Chemical Free Water and Wastewater treatment



Separation of particulate matter, both colloidal and dissolved, from water and wastewater conventionally uses chemical coagulation. In this process chemical additives neutralise the electrostatic charges that stabilise suspensions, causing the aggregation of matter and facilitating the separation of solids.

AguaCure's patent pending EC system provides a low energy, chemical free alternative to chemical coagulation. Sacrificial electrodes donate ions (typically iron or aluminium) into the water to be treated in continuous flow.

	ELECTRO-COAGULATION	CHEMICAL COAGULATION
Hazardous chemicals	No on-site exposure during normal operations	Yes
pH adjustment	Negligible	Typically requires pH regulation prior to discharge
Exposure to chemical supply	Low	High
Disinfection	Kills bacteria and viruses	Not documented
Efficiency	Forms ionic complexes which achieve greater removal rates	No ionic complex formation
Purity	Doses pure coagulant (100% Fe / Al)	Susceptible to presence of contaminants (SiO etc)
Carbon footprint	Small, compact consumable – lower footprint	Transported in bulk from abroad

DID YOU KNOW?

If the world's water fitted into a bucket only one teaspoon would be drinkable

ABOUT AGUACURE

AguaCure Limited, a UK-based water treatment company and part of the Modern Water plc portfolio, uses electro-coagulation to remove phosphates and reduce landfill more effectively than traditional chemical treatment. By removing the requirement for chemical dosing, and producing a smaller quantity of sludge for disposal, the technology offers major environmental and economic benefits.

Name

.....

Title

.....

Telephone

.....

Mobile

.....

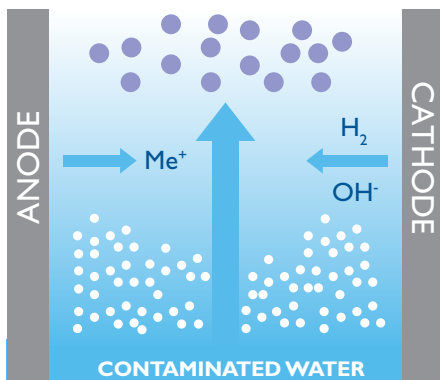
Email

.....



Electro-Coagulation explained

An electro-coagulation system uses the flow of current between two metallic plates immersed in an effluent stream to generate the necessary ions (Fe or Al) for particle destabilisation and floc formation. As the ions released from the metal surfaces react with contaminants in solution, coagulation occurs. The flocculated contaminants can be settled, skimmed or filtered depending on the application.



What EC can treat

EC can effectively treat process, potable and waste waters to remove:

- Heavy metals
- Suspended solids
- Salts such as phosphate

Applications

- Dairy wastewater
- Acid mine drainage
- Contaminated land soil washings
- Dissolved organic carbon from potable water sources
- Phosphate in municipal wastewater
- Aggregates recycling/extraction
- Aquaculture
- Tannery wastewater
- Ship's ballast/bilge water

AguaCure Advantages

In comparison with other EC systems the patent pending design provides:

- Uniform depletion and maximum use of contact area of the electrode material
- Increased operating time
- Reduced energy consumption
- Simple electrode replacement

MORE INFO:

www.aguacure.co.uk
or call 01248 361 501

Part of the Modern Water Group