

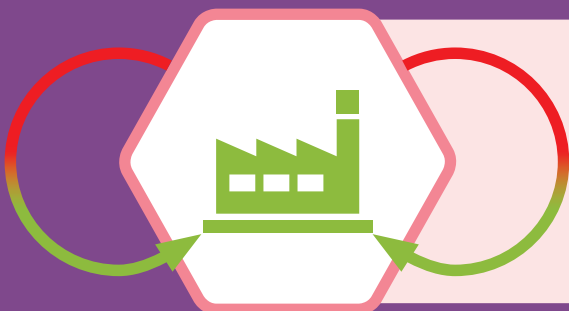


Water Treatment Chemicals

Industrial effluent treatment capabilities

In many industrial applications, the management of effluent treatment provides huge challenges due to the variability of water quality and water volume entering the treatment process. To ensure compliance with trade effluent consent permits, an understanding of the mechanical, operational and chemical aspects of the effluent treatment process is necessary to ensure unnecessary charges and unplanned costs are not incurred.

Veolia Water Technologies provides a comprehensive range of water treatment services and chemicals, including flocculants and coagulants - especially designed for the solid/liquid separation process in the industrial and municipal waste water treatment market. Alongside our equipment and preventative maintenance capabilities in wastewater treatment, we are a reliable partner to provide solutions for your trade effluent challenges.



Opex savings

Our team of expert wastewater chemists will look to deliver Opex savings by optimising the chemical program, and assessing any preventative maintenance needs. Our customers gain additional savings from the results of optimising plant performance often resulting in payback periods of months rather than years.

Wastewater audits to deliver improvements

Basic effluent treatment programs on manufacturing sites will potentially generate high COD and TSS in its effluent. This will result in high trade effluent costs and large amounts of sludge which requires tankers to come onto site and remove. Another effect can include the pipework starting to collect fat deposits, creating odours.

Following an appropriate site review we will evaluate your existing challenges through our wastewater auditing process and propose a solution to meet the needs of your business, which may include: Mechanical, Operational and Chemical evaluation of the wastewater streams, and a recommendation will be made on how best

to optimise the site. A typical recommendation may include installation of a controlled program to dose a chemical product aligned with the dynamics of the wastewater stream.

This would typically generate the following benefits:

- Significant reduction of COD and TSS levels in discharge water
- Significant reduction in trade effluent charges
- Significant reduction in tanker costs
- Improved cleanliness of pipework and reduced odour issues

Our range of products include:

- **Anionic, emulsion grade polymers:**
A range of high molecular weight anionic water-in-oil emulsions.
- **Cationic emulsion grade polymers:**
A range of linear and structured cationic water in oil emulsions.
- **Anionic, powder-grade polymers:**
Anionic powder-grade polymers available in low, medium and high molecular weights.
- **Cationic, powder-grade polymers:**
Cationic chemical powders available in a range of molecular weights.
- **Organic primary coagulants including polyamines and PolyDADMACS:**
High cationic charge products needed to destabilise negatively-charged colloidal particles and promote rapid floc formation. Low molecular weight and viscosity ensuring complete distribution and mixing of the polymer in the water.
- **Inorganic primary coagulants:**
A wide range of PAC based products, Ferric Sulphate and Ferric Chloride.
- **Anti-foams:**
Wide range of very effective anti-foam products.

We are driven to innovate:

Our specially created wastewater treatment chemicals are unique to us. Two of our key solutions include:

HydraPol™ Activ – Rapid and Efficient Polymer Activation

- Combines 4 patented process design innovations to provide efficient and rapid activation of emulsion polymer.
- Reduces polymer dosage requirements, enabling easier to feed and control emulsion chemistries to cost effectively replace both dry and liquid polymers.
- Eliminates the need for expensive and bulky mixing and ageing equipment associated with traditional polymer feed systems.



Biosourced flocculants and coagulants – a greener alternative chemical solution

- A genuine and credible alternative to synthetic polymers, Hydrex biosourced flocculants, made of potato starch based from natural cultures, are the result of ambitious research and development efforts, and an exclusive partnership with an industrial leader in starch based products.
- A cationic tannin-based coagulant provides an alternative to traditional metal-based coagulants, working in a wide pH range, is biodegradable and does not produce extra sludge.



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