



# PETROCHEMICAL

## Plant Application Successful Experience

A petrochemical company located in South America, producing 500,000 tons of Ethylene per year.

### CURRENT TREATMENT

- Does not achieve the environmental regulations standard from the local environmental agency;
- High levels of oil, grease and COD in the treated wastewater;
- Very low efficiency process using iron salt, polymer and a huge quantity of lime;
- High cost in the wastewater treatment using iron salts, polymers and a huge quantity of lime;
- pH fluctuation causing difficulties in the biological treatment;
- High energy consumption in the biological treatment;
- Generates a huge amount of sludge;
- Harmful sludge;
- Sludge with low degradability;
- The treated wastewater still contains high levels of iron salts;
- High ecotoxicity and toxicity in the current treatment process;
- The large amounts of iron salts and polymers will be accumulated in the surrounding ecosystem and will negatively affect wildlife and the ecosystem.



### REDUCES TREATMENT COST

- Acquapol is a metal-free vegetable organic coagulant/flocculant with the special characteristic to remove oil and grease;
- Great reduction of COD and G&O and does not affect the biological treatment;
- No need to use huge quantities of lime or any other kind of alkalizing agents;
- Very low cost of the wastewater treatment compared to the current treatment process;
- Sludge volume reduction;
- High performance of the Acquapol in the wastewater treatment process;
- Non-harmful sludge;
- Does not dispose any iron salts in the surrounding ecosystem, protecting the wildlife and the ecosystem;
- Easy handling;
- This “green technology” will highlight the company’s image due to its attention and care for the environment, positioning the company above the competition.

	Dosage mg/L	PAM mg/L	Lime - pH 11	COD (in flow 1,100 mg/L)	G&O (in flow 176 mg/L)
<b>Alum Salt Treatment</b>	60 mg/L	2	10	<b>440 mg/L</b>	<b>26 mg/L</b>
<b>ACQUAPOL Treatment</b>	15 mg/L	1	0	<b>380 mg/L</b>	<b>12 mg/L</b>
<b>Reduction</b>	<b>75 %</b>	<b>50 %</b>	<b>100 %</b>	<b>65.5 %</b>	<b>93.2 %</b>



Cost reduction



No lime



Reduction in chemical handling



Biodegradable product with no interference in the surrounding ecosystem, protecting wildlife and the ecosystem



No iron residue after treatment



Reduction of COD, H<sub>2</sub>S, grease and oils parameters



Sludge readily biodegradable



High efficiency



Health and safety improvements as a result of the use of a non-toxic and non-corrosive product